

APRIL 1959

CCJ

COMMERCIAL CAR JOURNAL

THE MAGAZINE FOR TRUCK
AND BUS FLEET OPERATORS
A CHILTON PUBLICATION



23rd

FLEET

REFERENCE ANNUAL



Geared by FULLER . . .

YELLOW TRANSIT buys more Fuller-equipped KW's

Yellow Transit Freight Lines, Inc., Kansas City, Missouri, recently purchased an additional 40 diesel-powered Kenworth CBE Tractors and now operates 342 Kenworths of the same type, all equipped with Fuller 5-A-65 Heavy-Duty 5-speed Transmissions.

Superintendent of Maintenance Mel McClure says, "We specify Fuller for a number of reasons. The 5-A-65 Transmissions in our Kenworths have

given us the best of service. Maintenance costs have been low; parts and service availability along our routes is excellent. Long life, correct gear splits and freedom from downtime really appeal to our drivers and mechanics. For dependability and ease of operation . . . and to help us move more goods, more efficiently . . . Fuller Transmissions are the best."

One of the fastest-growing motor freight carriers in the country, Yel-

low Transit has more than doubled tonnage and gross revenue since 1955. The Fuller-geared fleet now operates over 17,000 route-miles throughout nine states in the Midwest and Southwest.

For lower operating costs, less downtime for maintenance, reduced driver fatigue and *greater profits*, ask your truck or equipment dealer about the Fuller Transmission best suited for *your* operation.

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TRANSMISSION DIVISION
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KALAMAZOO, MICHIGAN



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Greyhound knows that...

**...dependable engine performance
is a secret of "on-time" schedules**

This is one of the important features of Greyhound service. It is one of the reasons so many travelers accept Greyhound's invitation to "take the bus and leave the driving to us."

Greyhound uses Pedrick Formflex Chrome Piston Ring Sets in its buses for extra assurance of dependable engine performance. The ease and simplicity of the installation, the way Pedrick rings restore full power quickly, provide maximum oil and fuel economy and last so very long are other important reasons for Greyhound's use of Pedrick rings.

So, in your fleet, to reduce down-time and improve operating economy, always install Pedrick FORMFLEX Chrome Piston Ring Sets—the *all-purpose* piston ring installation. Wilkening Manufacturing Co., Philadelphia 42, and Toronto 2.

DEPEND ON

Pedrick

FOR THE RIGHT RING JOB

COMMERCIAL CAR

—April 1959—Vol. 97—No. 2—

1959 FLEET REFERENCE ANNUAL

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1 MAINTENANCE

SEE PAGE 73

MOST COMPLETE all-in-one-place, easy-to-use service data available on current production trucks, buses, engines and fleet passenger cars

SECTION

2 STATISTICS

SEE PAGE 203

QUICK REFERENCE facts on trucks, buses, trailers, truck tonnage and passenger travel showing the size of the growing industry you are a part of

SECTION

3 OPERATION

SEE PAGE 221

MOST UP-TO-DATE listing available of state size and weight limits, safety equipment requirements, vehicle inspection and mud guard laws, state taxes

SECTION

4 SELECTION

SEE PAGE 255

ALL-IN-ONE-PLACE specs on current production trucks, buses, engines, transmissions, third axles, trailer suspensions to help you pick the right vehicle

SECTION

5 TRAINING

SEE PAGE 297

CONCISE DESCRIPTIONS of maintenance manuals and mechanic training films available to help you choose what you need for efficient training

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JOURNAL

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COMMERCIAL CAR JOURNAL, April, 1959

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Records Speed Driven - Mileage Covered

- Drive & Stop Periods

Records vehicle operation in chart form.

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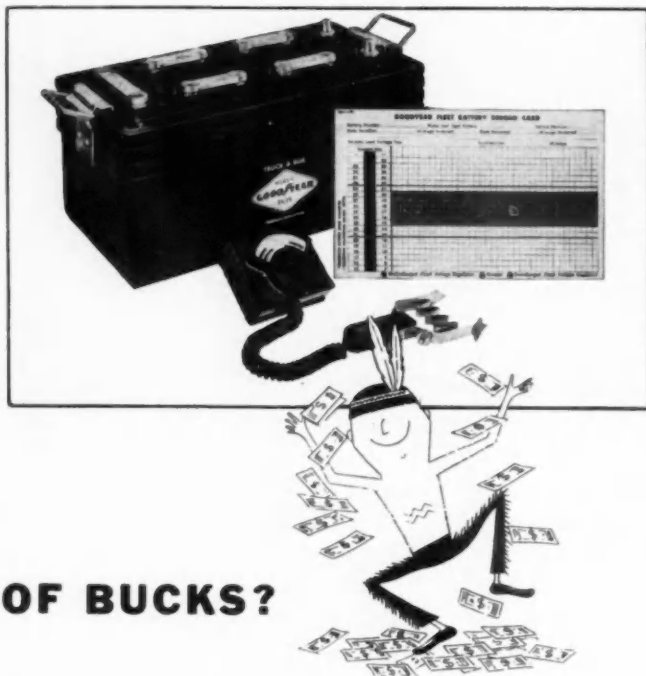
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Batteries may be a relatively small item in your budget—but they can add up to a mighty big expense when they fail prematurely.

There's a simple and practical way to prevent that. It's called the Goodyear Fleet Battery Maintenance Plan. This *free* Plan guards against the No. 1 battery killer—*improper voltage regulation*. Here's how it works.

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Whenever findings depart significantly from the heavy green stripe on the Record Card, you know voltage is too high or too low and needs prompt adjustment.

By spending less than two minutes a week per battery, you get longer battery life, longer electrical system service—and fewer road delays.

And the savings continue to grow when you use this Plan with Goodyear Heavy-Duty Truck and Bus or Diesel-type batteries. Mail the coupon for the whole story today. Goodyear, Battery Sales Department, Akron 16, Ohio.

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Please send me a copy of the Goodyear Fleet Battery Maintenance Manual.

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Number of Trucks in Fleet.....

THE OVERLOAD

E D I T O R I A L C O M M E N T

Progress Brews a Potent Spring Tonic

IT'S GOOD medicine once in a while to think about progress. All too often we're so engrossed with the trials and tribulations of the moment (such as 1958's saucer recession), we forget about long range progress.

As we buttoned-up this Fleet Reference Annual for the 23rd consecutive year, we decided to take a brief look at the issue of only 10 years ago. Here are just a few comparisons:

In 1949 there were 18 states with a practical gross weight limit of less than 58,000 lb. We're talking about the popular 2-axle tractor and tandem-axle trailer combination. Today there are only two. And the low is 50,000 lb in "poor little" Rhode Island . . . compared with 42,000 in Kentucky and Tennessee 10 years ago. That's progress.

Today there are only three states with less than 50-ft overall length for the same combination. They're all in New England—Connecticut, Massachusetts and New Hampshire. In 1949 there were 24 states in the 45-ft bracket. That's progress.

While 1958 truck production was not quite as high as in 1948, total truck registrations have moved steadily up. There were 7.1 million trucks at the end of 1948, 10.7 million at the end of 1958.

But even more interesting is the marked increase in the larger sizes. During the year 1948, 55.2 per cent of truck factory sales were under 10,000 lb GVW . . . in 1958 they were 65.6 per

cent. There are still lots of little trucks. But watch what happened in the medium sizes.

In 1948, 39.6 per cent of sales were between 10,000 and 19,500 lb GVW. For 1958 this had dropped to 22 per cent. And the big ones—19,000 lb GVW and up—went from 5.2 per cent in '48 to 12.4 per cent in '58. Believe it or not, 3 per cent of these were over 33,000 lb GVW.

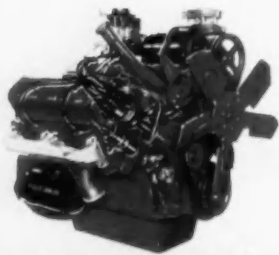
With the larger equipment, intercity freight tonnage moved up. Good measure of this is American Trucking Assns. truck tonnage index (1947-1949=100). For 1958, the index stands at a healthy 182 . . . a good 79 points higher than 1948's 103. (Not so incidentally, the 1958 mark is third highest on record.)

From a regional standpoint, the tonnage index shows increases in all areas ranging from 50 points in New England to a whopping 179 in the Rocky Mountain region. Close behind is the Southern region with an increase of 164 points and the Southwestern, up 158 points.

In commodities too, every classification shows an increase in 1958 compared with 1948. General freight was up 81 index points . . . from 103 to 184. But, as forecast in our February issue, refrigerated solids took the grand prize . . . up 177 points (from 97 in 1948 to a new index high of 274 in 1958). For details, see page 204.


All in all, it's a mighty healthy industry. We're glad to be a part of it. And, as one of our optimistic neighbors puts it so succinctly . . . wait till you see the next 10 years!

Bart Rawson
Editor



**Get an extra 5 miles per hour
or more average road speed!**

V-8 powered INTERNATIONALS are available with
choice of 401, 461 or 549 cu. in. displacement engines
—most powerful, most economical you can get!



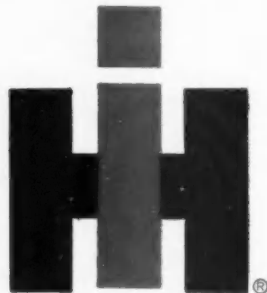
INTERNATIONAL Heavy-Duty V-8's make better time, more trips, more money!

V-8 powered INTERNATIONAL Trucks make owners the big money for good reason. Quality designed and quality controlled from start to finish, they offer the finest operating performance on the road.

Why? Because INTERNATIONAL Truck engineers don't "hold back." They carry on an advancement program that is continuous . . . that never stops!

The payoff: Greater power-life, less down shifting and elimination of engine lugging! Higher average road speeds! Faster turnarounds! Reduced overhead and operating expenses with fewer trucks hauling more payload per week! Solid revenues you can bank money on!

INTERNATIONAL V-8's are doing it for owners everywhere . . . they can do it for you. See your INTERNATIONAL Dealer now.



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Motor Trucks • Crawler Tractors
Construction Equipment • McCormick®
Farm Equipment and Farmall® Tractors

INTERNATIONAL® TRUCKS

WORLD'S MOST COMPLETE LINE



Weight-trimmed model VF-195 weighs only 10,650 lbs. ready for the road with lightweight options. V-8 power available up to 250 hp.



48-in. Sightliner® is the shortest proved-in-use tilt-cab truck. Also gives you high-low vision and pushbutton tilt action. Tandem axles to 34,000 lbs. capacity.



COE's provide better weight distribution with over 30 standard wheelbases engineered for 81-in. bumper-to-back-of-cab non-sleeper cabs and 83½-in. sleeper cabs.



SWING-AWAY

Swings in, out . . . head tilts up, down

It's the new Arrow "driver-customized" Swing-Away Mirror. For all-around performance, the Arrow Swing-Away is hard to beat!

- variable extension—from 14 $\frac{1}{2}$ " to 24 $\frac{1}{2}$ ".
- positive locking nuts.
- "customizer" head—marker lights (note Lo-Boy marker light on head), reflectors, company insignia may be mounted on its flat surface.
- $\frac{1}{4}$ " plate glass for extra strength.
- mirror protected against condensation.
- fits all trucks.
- baked black enamel finish.

See your jobber, or write for details. Arrow Safety Device Co., Georgetown, Delaware.



360° SWING FOR
BEST OPERATING
CONDITIONS



ADJUSTS EVEN IN
"SWING-IN"
POSITION



UP OR DOWN
ADJUSTMENT FOR
BEST VIEW



SWINGS IN FOR
CLOSE
MANEUVERING

ARROW
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with the
FLEET
in mind!

**COMPLETE AUTOMOTIVE LIGHTING SYSTEMS
SAFETY EQUIPMENT AND MIRRORS**



AT YOUR SERVICE

TIMELY NOTES ON MAINTENANCE AND OPERATION Edited by Ed Shea, Technical Editor

Passenger Car Road Failures

AMERICAN AUTOMOBILE ASSN. has just issued a report on passenger car road failures. As in 1957, 1958 still shows battery and electrical failures the main cause for road calls. Here are the figures as listed by the AAA:

Type of Service	Per cent
Battery & Electrical	22.07
Tire	21.09
Ignition	18.83
Tow or Wrecker	9.96
Stuck	5.01
Starter	4.28
Carburetor	3.63
Out of Gas	3.02
Gas Line	2.72
Brakes	2.09
Lock & Key	1.61
Lights	1.10
All Others	9.59

We think you'll find it helpful to check these figures against your own fleet's road failure record. If a large per cent of your service calls are for the same failure, (i.e.: dead battery, flat tire) it probably indicates that your PM program is weak in that particular area. More detailed attention spent overcoming that "weak link" will keep the service truck at home a lot more.

Trailer Roof Repairs

EVEN THOUGH trailer manufacturers take precautions to produce water-tight roof seams, joints do open up after years of use. And truckers report that conventional repair methods, using liquid or putty-type caulking compounds, provide only temporary protection. Their oil bases evaporate in time, causing the compounds to dry out and crumble.

Du Pont suggests a new way for more permanent repair of leaky seams. It employs urethane foam, neoprene-coated nylon tape, and a neoprene adhesive. These elements are available in kit-form.

Briefly, the repairs are made as follows: First clean the area around the seam. Next, apply

primer, then the cement. The strip of urethane foam is laid down over the seam. The backing is peeled off the neoprene-coated nylon tape and the tape is placed over the urethane-foam cushioning strip. Use a roller to make sure the tape is firmly bonded. The finished seam makes it completely water proof while allowing both foam and tape to "see-saw" with over-the-road motions of the plates in the trailer top.

Dry Filter Popular in Bakery Fleet

THE TREND toward dry-type carburetor air filters is gaining momentum. Here is another fleet that's in the change-over process.

Dugan Brothers Bakery, Newark, New Jersey one of the world's largest bakeries with its 1800 trucks, has already converted half the fleet to Fram dry-type air filters. Frank C. Benitz, Transportation Manager for Dugan, says these dry filters are contributing towards low maintenance costs. The fleet also has found dry-type filters are more efficient than oil bath units. Dugan's program calls for these filter elements to be changed every 10,000 miles, more often for trucks operating in dusty areas.

Switching time to the new type filter takes five minutes. The dry-type filters cut service time. Only a few minutes are required to remove the cartridge, tap it on a flat surface and reinstall. Very dirty cartridges are further cleaned with an air hose.

Seat Covers Help Trade-In

WHEN THE time comes to trade in a passenger car fleet, the interior condition of a car can be more critical than its exterior, according to George E. Wilson, Automotive Administrator for Lever Brothers Co. That's why Wilson has an arrangement with a national seat-cover chain, to assure protection for Lever's 950 car fleet at a uniform cost throughout the United States.

Salesmen often toss cartons, display materials or briefcases on the car's seats. If the upholstery

(TURN TO PAGE 12, PLEASE)

WAGNER LOCKHEED

withstands today's high



Wagner Lockheed

has ALL requirements
of GOOD Brake Lining

- | | |
|------------------------------------------------------------------------------|-------------------------------------|
| 1. DESIRED COEFFICIENT OF FRICTION
Maintaining Life Long Frictional Value | 4. QUIET OPERATION |
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Resistance to Braking Temperatures | 5. NON-OFFENSIVE ODORS |
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TO SCORE DRUMS | 6. NOT UNDULY SENSITIVE TO MOISTURE |
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WB59-3

LOCKHEED BRAKE PARTS, FLUID, EXCHANGE SHOES and LINING • AIR HORNS • AIR BRAKES • TACHOGRAPHS

BRAKE LINING braking temperatures...

**This complete line of modern brake lining
...and blocks...provides you with correct choice
Engineered for your heavy-duty service needs**

Today's brake linings may look like the linings marketed over the past twenty years. However, due to continuous research, advanced engineering, and improved formula—Wagner's linings have gone through a process of evolution that makes them more than adequate for modern braking...Today, Wagner offers you a wide choice to meet your needs.

You'll like the way the new Wagner Lockheed Heavy-Duty Brake Lining withstands today's high braking temperatures. It resists heat with very little loss of friction or wearing qualities.

Engineered to meet the rigid demands of present-day over-the-road driving, Wagner Lockheed Brake Lining wears slowly and evenly. Brakes require fewer adjustments even though subjected to heavy-duty service under severe driving conditions.

This high-quality lining is uniform in density and in frictional qualities throughout entire service thicknesses. Lining will not compress, absorb moisture, or deteriorate with age. Contains no harmful materials to damage drums.

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You can benefit, too, by purchasing all your brake service needs—Wagner Lockheed Hydraulic Brake Parts, Fluid and Lining—from one dependable source...Your nearby Wagner supplier.



EXCHANGE SHOE SETS save you time and money. "HOW-TO-DO-IT" Installation Instruction sheet is included with each set. Shoes are lined with Wagner approved lining—contour ground, ready for installation.

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Prior "L-STEP" SAFETY TANK

Prior Engineers designed special dies to emboss an impact relieving structural rib as an integral part of the fully flanged tank heads.



The threat of entry of foreign particles into the fuel line has been eliminated on all Prior Safety Tanks by the adoption of Monel Filter Tips. Fuel Supply lines are removable easily, with a wrench.



All Prior "L-Step" Tanks are equipped with a SUMP in the bottom of the tank permitting full utilization of the fuel capacity of the tank.

PRIOR PRODUCTS, INC.

P O Box 7608 Dallas, Texas

CCJ AT YOUR SERVICE

Continued from Page 9

is not adequately protected, the re-sale value of the car is jeopardized by the resulting damage.

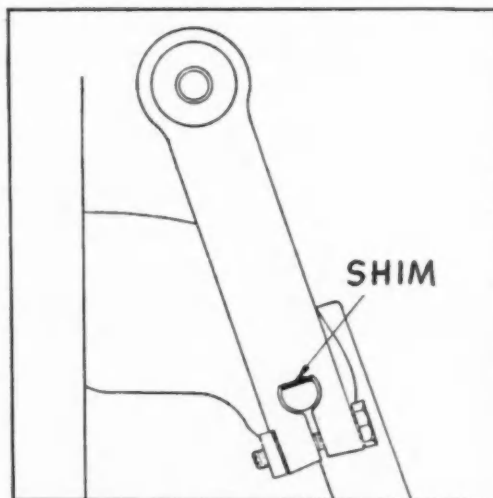
Used-car buyers will not make a final decision on any car until they have assured themselves that the interior is clean and unmarred. That's why, says Wilson, we consider good-wearing, well-fitted seat-covers a must on all our cars to assure cleaner, better protected interiors, and ready acceptance at trade-in time.

Prior to these arrangements, Lever bought direct from seat-cover manufacturers. Each salesman was responsible for seeing that covers were installed, but many installations were poorly done.

Generally Lever Bros. operates a fleet car for two years. Wilson feels that a car should be traded while it still looks good and is in good running condition.

Plymouth Correct Erratic Shift

AN ERRATIC SHIFT pattern may be noticed on 1959 Plymouths equipped with automatic transmission. This is caused by excessive clearance between accelerator bell crank and shaft. To correct this, Plymouth says to remove shaft and lever. Then open the clamping end of lever and insert largest possible shim between shaft and lever on flat area (see sketch). Don't



do a haphazard job and just tighten the clamp bolt. Without a shim the job is only temporary. After parts are reinstalled, adjust throttle linkage.

(TURN TO PAGE 17, PLEASE)



TOTAL MILEAGE INCREASED BY BONUS RECAPS

Total cost-per-mile decreased with Lee Super DeLuxe Highway Nylons

If you keep accurate cost figures on tire mileage, as most smart operators do, you can easily prove to your own satisfaction that you can't beat Lee Nylons. For these rugged tires give you not only maximum original mileage, but their carcass strength is such that you can rely on multiple recaps.

Into these tires Lee puts the toughest cord known—Super-Tensile Nylon, produced by an exclusive Lee process. Users tell us that this tough cord gives them unequaled protection against impact bruises, blowouts and moisture damage.

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So why not specify Lee Super DeLuxe Highway Nylons, tube or tubeless, for all your units. They give you the greatest assurance of long original mileage and maximum recaps. And when it comes to retreading, you can't do better than to specify Lee Premium Double-Life Tread Rubber, branded for your protection.

Shown is the Lee Super DeLuxe Highway Nylon. Whatever your truck tire needs, there's a Lee that's right for the job.



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Company

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service the GIANTS



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NEW BLACKHAWK WHEEL DOLLIES — slash tire-wheel job time 80%! One man can easily service all 4 wheels. Three models — Capacity 1500 to 2600 lbs.

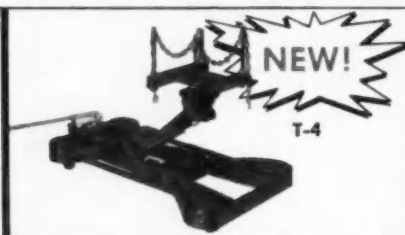


NEW BLACKHAWK MOBILE LIFTS — full 5,500 lbs. capacity. Lifts front and rear of all trucks. Two-speed air-lift. Mechanical safety latches. Quickly pays for itself.

...baby your service budget!



BLACKHAWK SERVICE JACKS — 1½, 2, 4, 10 and 20-tons. Easy-to-spot, sneaks under lowest axles. "Ten-tonner" handles everything that rolls!



NEW BLACKHAWK T-4 TRANSMISSION JACK — one of a complete line of four models, ½ and 1-ton capacities. T-4 and one man easily handle all makes of truck transmissions!



NEW BLACKHAWK MOBILE CRANES — lift engines, tires, barrels, all bulky equipment, ½, 1 and 2 ton capacities. Also mounted on trucks and docks.

More good news for fleets from the long red line — for bus and truck operators who want more profitable road time, less non-productive time in the shop. Blackhawk offers rugged, brute strength and top-efficiency in new fleet service equipment that boosts service efficiency, slashes manhours, speeds routine

inspections of every vehicle you operate.

Make your next jack a Blackhawk! the only complete fleet service equipment line — your one source for the right jack for every job.

Your Blackhawk jobber is waiting for your call. Phone him right now!



WORLD'S LARGEST MANUFACTURER OF MECHANICAL, AIR AND HYDRAULIC-POWERED SERVICE EQUIPMENT

BLACKHAWK

BLACKHAWK MFG. CO., Dept. J-1149, Milwaukee 46, Wisconsin



BUTYL INNER TUBES

For Extra Economy and Trouble-Free Mileage!

OVER 40,000,000 Butyl tubes sold in 1958! The reason? When you buy Butyl tubes, you're buying quality and economy. Butyl tubes hold air eight times better. This protection eliminates rapid tire wear caused by excessive air loss. Butyl tubes provide rugged built-in road endurance that pays off in long tire life and extra mileage. This is confirmed by a majority of retreaders who reported in a recent survey that tube-type tires give more retreads. And you'll find that Butyl tubes are the most effective way to correct tubeless tires that resist repair.

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Brown Trailers

haul everything from wood chips to pianos



Hauling Wood Chips in Idaho

120 miles across mountains and rolling wheat country with a 53,000 lb. load of wood chips. That's the rugged assignment for four Brown 40-foot trailers. Aluminum liners in these units taper two inches outward front to rear so loads break loose better when trailer is tilted to 60° angle for dumping.

Pianos and Frozen Foods

This Brown trailer boasts both refrigeration and Cushionair suspension. Cushionair pays off particularly on the New England to Benton, Arkansas, portion of each trip; protecting the pianos being hauled in for rebuilding. Refrigeration pays off on the backhaul East, permitting Benton Piano Co. to profitably transport frozen foods.

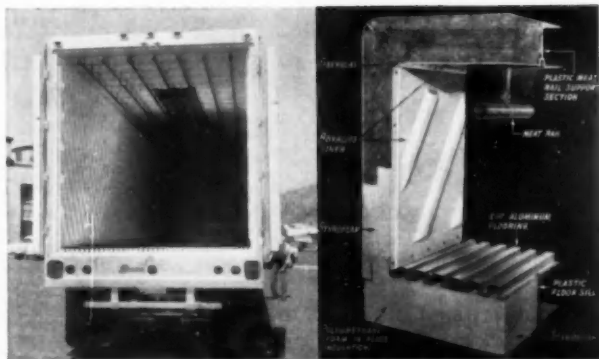


Deliver Oven-Fresh Bread in California

24' insulated Brown aluminum trailer makes daily trips from Richmond to Sacramento loaded with Baroni's famous French breads and rolls. Built-in water heater keeps the products warm and oven-fresh. Roll-out racks and powered liftgate speed transfer of goods from trailer to route trucks.

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Clark Equipment Company





New More Efficient Trailer Insulation

Fiberglass reinforced plastics, polyurethane foam and conventional materials are combined to provide a more efficient insulation technique for Brown trailers. The new combinations fill voids difficult to seal with commonly-used rigid materials, and also prevent moisture accumulation in insulation cavities.

CLARK EQUIPMENT COMPANY

BROWN TRAILER DIVISION

Box 410, Michigan City, Indiana

CCJ AT YOUR SERVICE

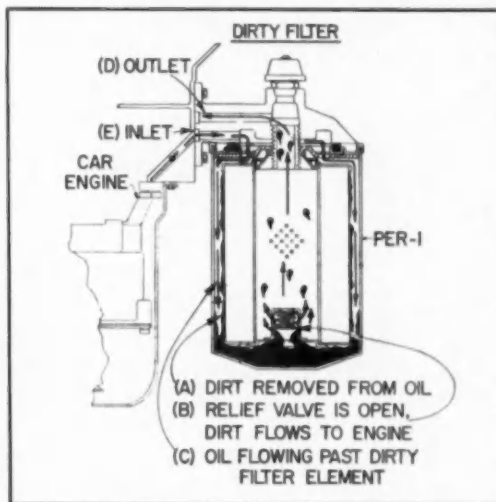
Continued from Page 12

Check Your Oil Filter

MANY fleet operators today are not aware of the importance of changing oil filter elements before they become completely clogged with dirt and sludge. This condition combined with extended oil drain periods prevents the oil filter from doing the job it is intended to do.

A Purolator service bulletin reminds us that even full-flow filters must have a built-in bypass of some kind to insure an oil supply for the engine in case the filter becomes completely inoperative through disregard of proper replacement procedure.

A really clogged filter (as illustrated) increases oil pressure between the filter and the housing. This causes the relief valve to open and oil to flow through the dirty housing through the relief valve directly to the bearings and other parts of the engine. Obviously, such oil could be highly contaminated with dirt and grit. All of the good work that the filter had been doing would be undone in a very short time.



Once an engine has been forced to operate—even a few hundred miles—with a filter relief valve open, a surprising amount of dirt and grit will have lodged in oil lines, bearings and vital parts.

In a vertically mounted filter, it is possible for the dirt—which is heavier than the oil—to accumulate around the relief valve to a point where even dirty oil might have difficulty in getting through in adequate supply.

(TURN TO PAGE 20, PLEASE)



*"They treat you fine
at the
Goodyear Sign!"*

—where you'll find the best values in TRUCK TIRES to meet every need of Tonnage, Traction and Terrain—from pickup and panel-truck operations, to the biggest over-the-road haulers and earth-movers. All backed by years of experience . . . all expertly serviced at **GOODYEAR DEALERS'.**



RIB HI-MILER
Best buy in
the low price field

HI-MILER XTRA GRIP
Year-round low-cost
super-traction



TRACTION HI-MILER
Premium performance
at moderate price

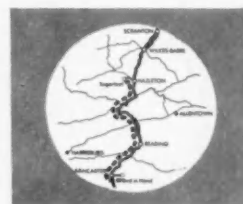
HI-MILER CROSS-RIB
Shatters highway
tread-wear records

Hi-Miler—T. M. The Goodyear Tire & Rubber Company, Akron, Ohio

"From Bird in -Cross-Ribs

Famous "Pipeline on Wheels,"
Reports

"In our operation, trucks must cover as much rough territory empty as with a full pay load. Take our mountain runs for example. With winding roads and steep grades, plus all the pounding and bouncing an empty tanker undergoes, tires take a terrific beating. We were delighted to get 40,000 original tread miles under these conditions.



"Yet, new Goodyear Cross-Ribs give us a minimum of 60,000 original miles, and we average 2½ recaps per tire that give us many more thousands of extra miles!"

"Goodyear's Cross-Rib has the cool-running, even-wearing extra-tread depth that runs like ours need badly. And with the extra strength of 3-T Nylon Cord, tire failure and repair costs have been reduced to a minimum.

"And traction? Well, despite rugged, tire-taxing roads and weather last winter, we hardly ever used chains with Cross-Ribs, even in the slick going over the Poconos. And *that's* tire performance for you!"

E. Brooke Matlack, largest single tanker operation in the business, is just one of many truckers who make big savings with new Goodyear Cross-Rib Tires. Get all the facts from your Goodyear dealer. For documented case histories, write Goodyear, Truck Tire Dept., Akron 16, Ohio.

HI-MILER CROSS-RIB: EXTRA RUBBER plus TRIPLE-TOUGH 3-T NYLON CORD

1 60% thicker, nonskid tread! 2 Cooler-running tread design. 3 Triple-Tough 3-T NYLON Cord. (Goodyear triple-temperes Nylon cord in an exclusive process involving Tension, Temperature and Time, to make it TRIPLE-TOUGH—for longest tire life, most recaps, lowest cost-per-mile!)



TRUCK TIRES by **GO**

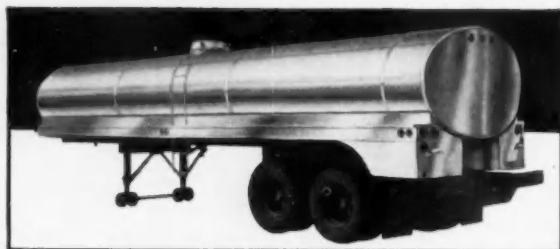
Hand to Sugarloaf upped tire mileage 50%!"

E. Brooke Matlack, Inc., of Pennsylvania,
Cost Savings in Tire-Killing Tanker Operation



OD YEAR

More tons are hauled on
Goodyear Truck Tires
than on any other kind



If you haul **CHEMICALS, BEVERAGES,** **FOOD**, get a **PAYLOAD BONUS** from **PORTERSVILLE!**

Litewate Stainless Tanks are engineered to eliminate every ounce of needless weight. New multi-section exterior cuts maintenance costs. Exclusive reinforcing rings at stress points assure you extra mileage per tank. Portersville micro-smooth stainless steel tank interiors exceed all sanitary requirements and are easier to clean.

If you're after bigger hauling profits, send your tractor data and commodity requirements to:

Portersville Stainless Equipment Corp.

PORTERSVILLE (BUTLER COUNTY) 9, PA.



- REDUCE ACCIDENTS
- MEET STATE LAWS
- LAST LONGER



"STOP IT" SAFETY FLASHER makes lights flash on-off, for warning signals, directional signals. Flashes 1 to 4, 21 candlepower lights, singly or in unison, without matching flashers to load. 6 or 12 volts.



HEAVY DUTY "UNIVERSAL" ALTERNATING FLASHER meets State Laws for alternating flashing signals. Up to 15 amperes, 6 or 12 volts. Operates magnetically. Nothing to wear out. No lubrication. No upkeep. For lights or horn.

Write for Folders, Prices & Name of nearest Jobber

MACCHI & COMPANY

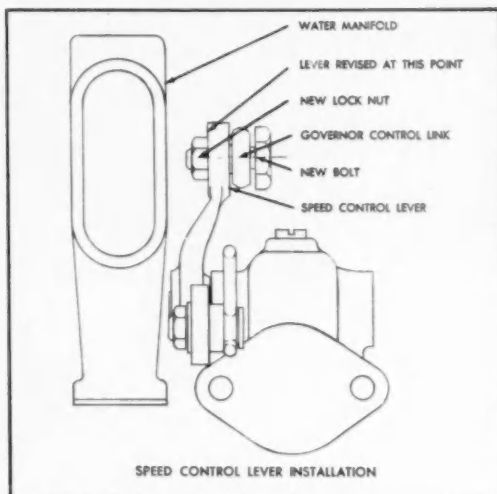
819 Valencia Street, San Francisco 10, Calif.

CCJ AT YOUR SERVICE

Continued from Page 17

Diesel Governor Check

CHECK YOUR 4 and 6-cyl GM Series 71 "B" and "D" engines equipped with a variable speed governor. Interference may be found between the governor speed control lever bolt and nut and the water manifold. Detroit Diesel says to eliminate this condition, the governor speed control lever has been revised. Lever width has been changed from .320 to .288 in. (see illustration). Along with this lever, a new bolt and self-locking Marsden nut are used in place of former



link bolt and nut. Detroit Diesel adds that with this self-locking nut, a lock washer is no longer necessary. Therefore additional clearance is gained at this point. Only the new type bolt will be available for service and a self-locking nut must be used when installing it.

Chevrolet Changes Timing Specs

TIMING ON 1959 Chevrolets equipped with 6-cyl, 235-cu in. engines is now being set in production at 5 deg BTDC. This 5-deg advance mark is the first short vertical line stamped on the flywheel at a location clockwise from the TDC timing ball. Chevrolet says this 5-deg advance was made to improve engine performance and economy. They suggest that earlier 1959 production 6-cyl, 235-cu in. engines with timing set at the TDC mark be re-set to this new advanced point at time of engine tune-up. Ignition timing on 1958 and earlier 235-cu in. engines and all 261-cu in. engines remain at TDC.

(TURN TO PAGE 24, PLEASE)



Here's how Grey-Rock cuts fleet operators' brake costs

Smart fleet operators know that the real cost of fleet brake blocks and linings is not the initial outlay. Brake maintenance is the headache. Accidents — ruined brake drums — too frequent adjustments and relines — downtime and labor—delayed schedules — can often be traced to the use of cheap brake blocks and linings.

Grey-Rock quality can save you money

Grey-Rock Balanced Brake Blocks and Trucksets are distinctively different. They combine just the right

materials—woven and molded or all-molded combinations — to equalize wear, maintain balance between shoes in the same wheel and between axles. They wear slowly and evenly, give you thousands of extra miles between relines. You avoid expensive drum replacements. You keep your fleet operating on schedule, carrying more freight or passengers. It adds up to the one factor you are most interested in—*lower operating cost-per-mile*. Ask your Grey-Rock jobber to give you the full details or write to us.



BALANCED TRUCKSETS FOR LIGHT AND MEDIUM TRUCKS. Specially engineered linings in woven, molded, and woven-molded combinations, for every make and model.



BALANCED BRAKE BLOCKS for safer, smoother stops. **GREY-ROCK VEE-LOK® CLUTCH FACINGS** for smoother starts.

Only **Grey-Rock** *makes*

BALANCED BRAKE LININGS

BALANCED BRAKSETS • TRUCKSETS • BRAKE BLOCKS • VEE-LOK® CLUTCH FACINGS

GREY-ROCK Division of Raybestos-Manhattan, Inc., MANHEIM, PA.

RAYBESTOS-MANHATTAN, INC., BRAKE LININGS • BRAKE BLOCKS • CLUTCH FACINGS • INDUSTRIAL RUBBER • MECHANICAL PACKINGS • ASBESTOS TEXTILES • ENGINEERED PLASTICS • SINTERED METAL PRODUCTS • RUBBER COVERED EQUIPMENT
LAUNDRY PADS AND COVERS • ABRASIVE AND DIAMOND WHEELS • INDUSTRIAL ADHESIVES • BOWLING BALLS



ENGINEER'S FIELD REPORT

PRODUCT RPM DELO OIL

FISH TRANSPORT CO. INC.
FIRM New Bedford, Mass.

Just .004" liner wear in 270,000 miles with RPM DELO



In 6 years of using RPM DELO Oil, Fish Transport Co. has never had a road breakdown from lubricant failure. "Last year, when one of our Macks was down for periodic inspection, we found less than .001" wear on main bearings...only .004" on cylinder

liners, although it had run 270,000 miles in two years," says fleet manager Bernard Finkle. "Since then this same truck has gone another 100,000 miles, and it's still going strong." Firm's fleet includes Internationals (above), Macks, GMC's, Autocars.



"Rushing perishable fish (left) to market in less than 7 hours, we can't risk breakdowns," says Mr. Finkle (right). "We've used RPM DELO exclusively for 6 years with excellent results. Not one of our 30 trucks has required major engine overhaul during this time." Fish Transport Co. specializes in overnight delivery to New York and Philadelphia from principal New England ports.

TRADEMARK "RPM DELO" AND CHEVRON DESIGN REG. U.S. PAT. OFF.

STANDARD OIL COMPANY OF CALIFORNIA, San Francisco 20
THE CALIFORNIA OIL COMPANY, Perth Amboy, New Jersey

Why RPM DELO Oils reduce wear—prolong engine life

- Oil stays on engine parts—hot or cold, running or idle
- Anti-oxidant resists lacquer formation
- Detergent keeps parts clean
- Special compounds prevent corrosion of bearing metals
- Inhibitor resists crankcase foaming



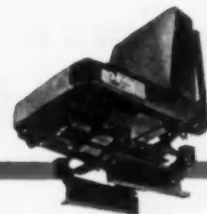
For More Information about RPM DELO Oils or other petroleum products, or the name of your nearest distributor, write or call any of the companies listed below.

STANDARD OIL COMPANY OF TEXAS, El Paso
THE CALIFORNIA COMPANY, Denver 1, Colorado





Q and A Bulletin



Helpful information on the use and selection of suspension seats

Questions which follow are ones frequently asked about Bostrom "Level-Ride" 80 Seats. You may find the answers useful in your consideration of suspension seats for your trucks.

Q: Do I need suspension seats in trucks which are driven on relatively short runs?

A: Many short haul jobs, such as construction materials delivery, quarry and cement trucking, need suspension seats because of rough rides and frequent off-the-road operation. In addition, a good rule to follow is to evaluate the effect of truck-driving fatigue on drivers' relations with customers. Fatigue causes irritability, and can adversely affect customer relations. Thus, when drivers contact customers, they benefit from the smooth, fatigue-reducing ride "Level-Ride" 80 Seats give them. For example, city pickup drivers, fuel truck drivers, and many others, not only experience rough riding, but also need to maintain their good dispositions with customers. Then it certainly pays to give drivers Bostrom "Level-Ride" 80 Seats.

Q: On longer runs, won't drivers get sleepy if the ride is too easy?

A: Certainly no more so than if you put drivers into passenger cars. Actually, what makes drivers sleepy is fatigue—and fatigue is one of the results of a bouncing, vibrating ride on a non-suspension seat. Riding on a Bostrom "Level-Ride" 80 Seat reduces fatigue—helps drivers keep awake and alert—makes them safer drivers, too.

Q: How do you arrive at "5-times-better ride" on a Bostrom "Level-Ride" 80 Seat?

A: This measurement is done in Bostrom laboratories and on field tests with electronic testing equipment. An ordinary seat and a Bostrom "Level-Ride" 80 are mounted side by side, and subjected to identical vibration and road shock conditions. Electronic controls, attached to each rider, measure the degree and rapidity of rider movement. Electronic impulses show that, on an average, 80% of vibration, jolts and jars are removed from the "Level-Ride" 80 Seat rider. He is subjected to one-fifth the vibration and shock experienced by the ordinary seat rider—thus obtaining a 5-times-better ride.

Q: What is meant by the term "human engineering" applied to Bostrom "Level-Ride" 80 Seats?

A: Before Bostrom seats became popular, truck seats were designed to fit the vehicle, not for the driver. Bostrom changed this concept by designing a seat to fit the man. Not only is road shock engineered out of a "Level-Ride" 80 Seat, but also the seat is adjustable to the individual driver's exact comfort requirements.

Q: How many comfort adjustments are possible with "Level-Ride" 80 Seats?

A: Most important is adjusting the suspension system to the weight of the driver—with a range of 150 to 275 pounds. This must be done to insure the best possible ride for each driver. In addition, seat cushion depth is adjustable; seat back can



be set at one of three different positions; rear of cushion may be raised or lowered; seat may be moved fore or aft along a 4-inch ball bearing slide.

Q: Can I also obtain companion seats, styled like "Level-Ride" 80 Seats?

A: Yes. A Bostrom non-suspension seat is available, with upholstery to match the "Level-Ride" 80 Seat. Also an extra-width, three-quarter seat is available. Of course, to provide a passenger-car ride for a companion driver, a second "Level-Ride" 80 Seat may be installed.

Q: Who endorses and uses Bostrom "Level-Ride" 80 Seats?

A: Every truck manufacturer endorses and offers "Level-Ride" 80 Seats—Autocar, Brockway, Cook, Chevrolet, Dart, Diamond T, Dodge, Duplex, Federal, Ford, FWD, GMC, Hayes, Hendrickson, International, Kenworth, Leyland, Mack, Oshkosh, Peterbilt, Reo, Walter, Ward LaFrance, White, White Freightliner. Among truck fleets, the user list is long and impressive—includes haulers such as Akers, Briggs, Consolidated, Gulf Oil, Motor Cargo, Olson, P.I.E., Spector, Yellow Transit, and many others.

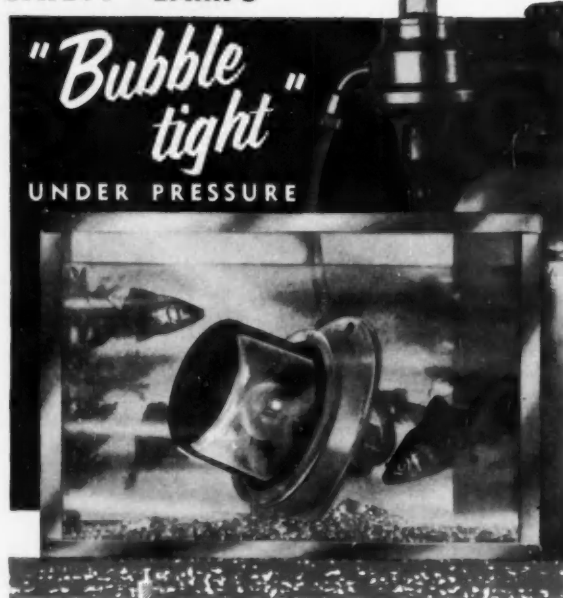
For additional information, or for parts and installation instructions, write Bostrom Corporation, 133 West Oregon Street, Milwaukee 4, Wisconsin.



BOSTROM CORPORATION

133 West Oregon Street • Milwaukee 4, Wisconsin

WARREN Snap Seal SAFETY LAMPS



LENS HOUSING
PROVEN "O" RING LENS SEAL
Vapor-proof

Warren Snap Seals prove that after six months of total immersion in water, all exterior conditions are excluded indefinitely. Results: lifetime service, minimum maintenance, no rusting or corrosion, longer bulb life, no inside lens fogging.



No time-consuming screws, clips or gaskets. Replace bulb in seconds.

Free Catalog...

to improve your safety lighting send today—

NAME _____ TITLE _____

COMPANY _____

STREET _____

CITY _____ STATE _____



BETTS MACHINE COMPANY
WARREN, PENNSYLVANIA

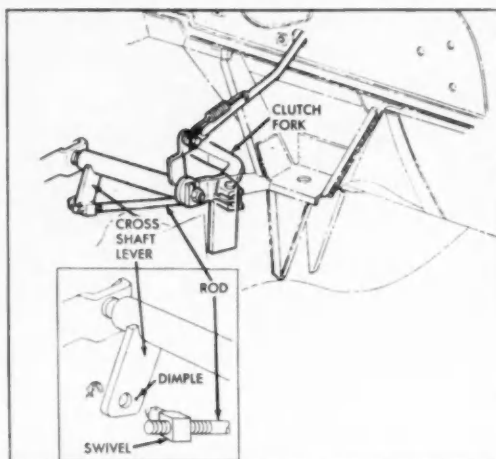
MANUFACTURERS OF WARREN EMERGENCY VALVES & WARREN MANIFOLD VALVES

CCJ AT YOUR SERVICE

Continued from Page 20

Check Clutch Pedal Free Play

HERE'S HOW to obtain correct clutch pedal free play adjustment on 1958-59 Chevrolet passenger cars. Chevrolet Service News says to utilize the locating dimple in the clutch cross-shaft lever (see illustration). This method will



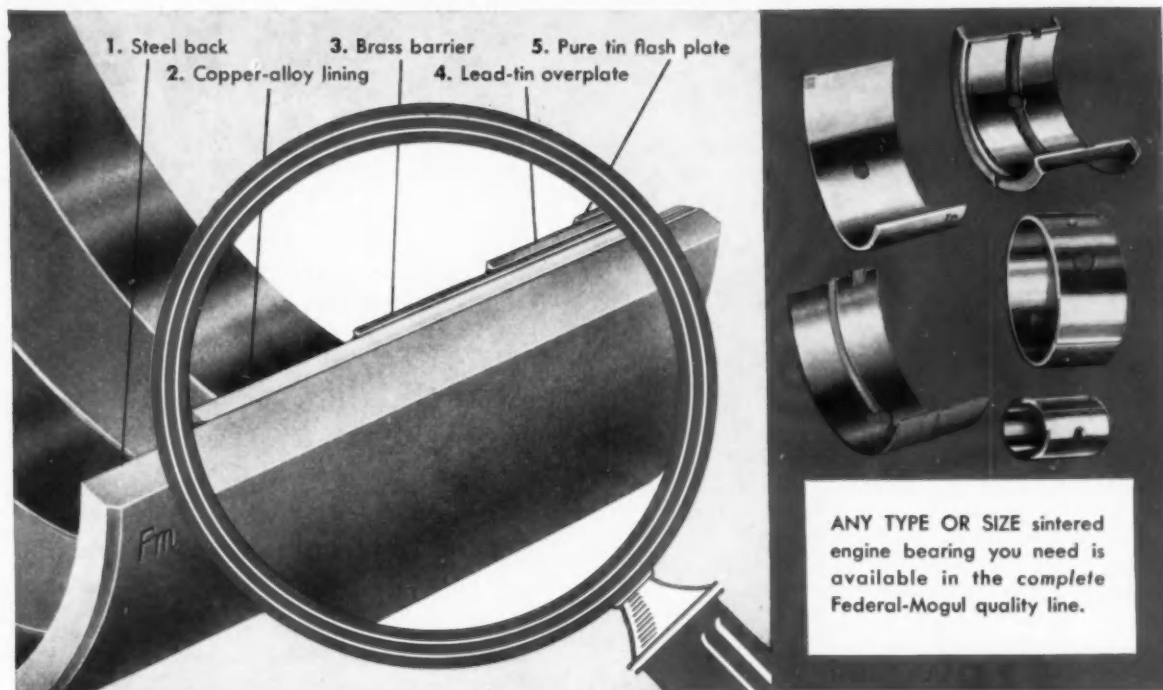
automatically provide the desired .060 in. clearance between throwout bearing and the clutch pressure assembly spring. First disconnect forward end of clutch fork pushrod from cross-shaft lever. Now move the fork pushrod rearward to remove all slack. Next, rotate swivel until its conical point lines up with "dimple" in cross-shaft lever. Hold swivel position on rod and re-connect to cross-shaft lever.

Euclid Filter Change

EUCLID SAYS that transmission oil filters must be changed at the following intervals:

Transmission Model	Filter Change Period
Fuller (all models)	1000 hr
Allison TG series (all models)	500 hr
Allison CRT 5630 (27 & 31 LOT)	200 hr
Allison CT 5640	200 hr
Allison CRT 5531 (TC-12)...	100 hr
Allison CRT 5532 (C-6).....	100 hr
Allison CT 3340 (S-7).....	200 hr
(TURN TO PAGE 28, PLEASE)	

Better products, faster, from your Federal-Mogul jobber:



**Federal-Mogul builds this bearing in 5 layers
so fleets clock more miles between overhauls!**



**Sintered copper-alloy engine bearings and bushings pay
you dividends in longer life, lower maintenance costs!**

On its surface, a Federal-Mogul sintered copper-alloy engine bearing looks simple. Underneath, you see this complex marvel of research, design, engineering and production—made by a patented process to deliver a big bonus in fleet mileage.

Five separate layers make up each sintered bearing: 1. Steel back provides strength and bond; 2. Finely powdered alloy of copper for strength, and lead for softness is sintered to make the prime bearing surface; 3. Brass barrier assures lining stability; 4. Lead-tin overplate protects bearings and shaft during break-in; 5. Pure tin flash-plating resists corrosion.

Longer life, less maintenance—that's why fleet owners prefer Fm sintered bearings 2 to 1! Your Federal-Mogul jobber gives fast delivery on the size or undersize you need. Call him today!

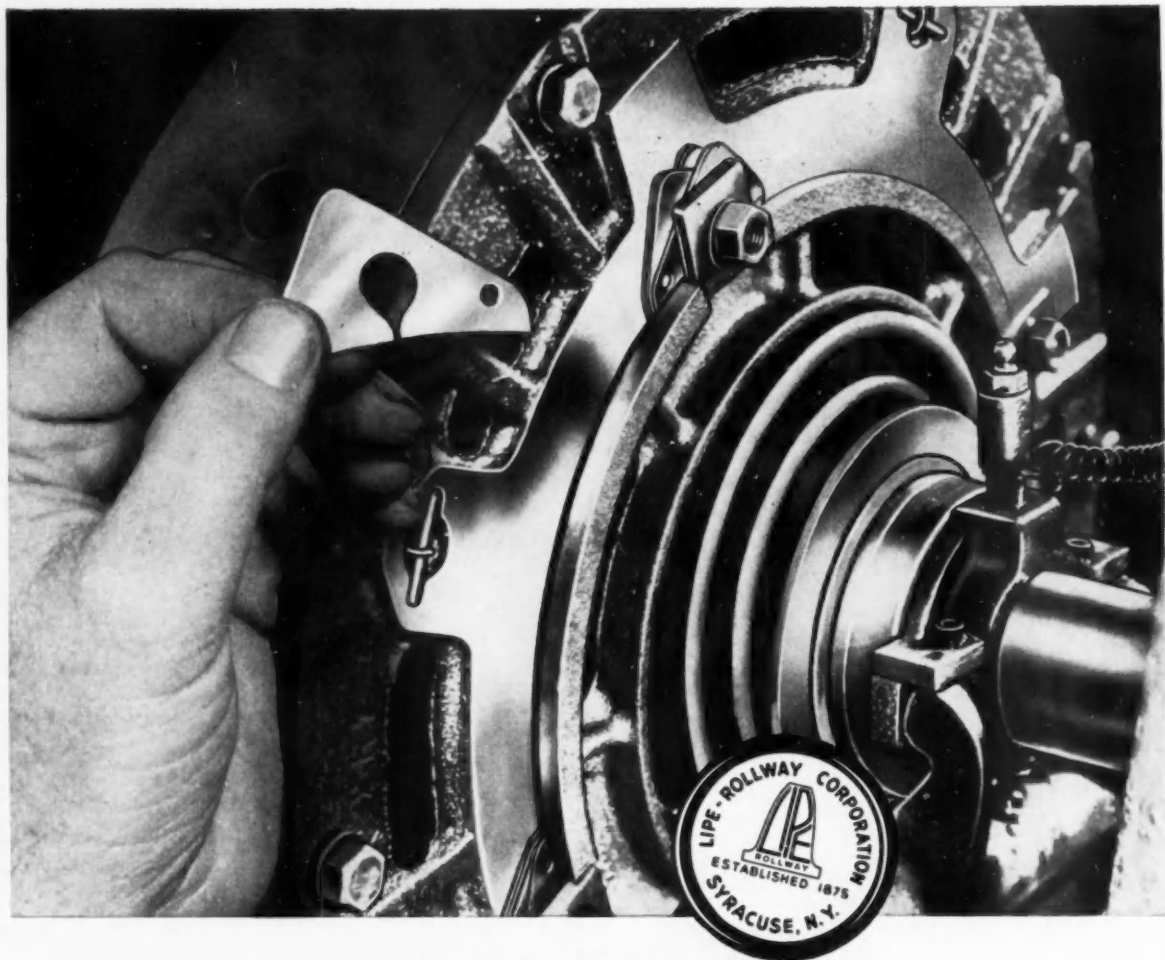
FEDERAL-MOGUL ENGINE BEARINGS

FEDERAL-MOGUL SERVICE

DIVISION OF FEDERAL-MOGUL-BOWER BEARINGS, INC.,

DETROIT 13, MICHIGAN





If you're short on shims, you'll be short on mileage!

Installing a Lipe ML clutch that's been reconditioned by a field rebuilder demands two vitally important checks: the "A" Dimension, *and the number of shims.*

For instance, new-clutch specifications on the model you're using may call for six shims. Every Lipe Guaranteed Clutch will *have* six. Removed one at a time for adjustment, they will give you *maximum use of your friction material.*

Field rebuilders will often install only *four* shims — to compensate for reused worn parts and remachined pressure plate surface.

They get the "A" Dimension, all right. But you lose the use of one-third of your friction material . . . *or one-third of the mileage of your clutch!*

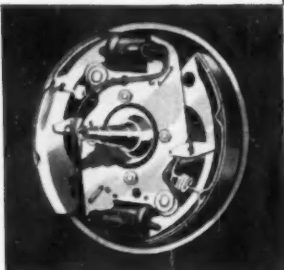
Lipe's answer to an excessively worn part is to install a new part. Maintenance of such high precision standards throughout enables us to unconditionally guarantee our product to be unequalled by field rebuilders.

Look for the Factory Seal (pictured above) when you take delivery on a Lipe Guaranteed Clutch. It is your assurance of long, trouble-free life and *big* long-run savings!

SEND TODAY FOR OUR FREE "Clutch Facts" BOOKLET, telling how to get more life from your heavy duty clutches, and what to look for when replacing them. To get your copy in a hurry, look for your nearby Lipe Distributor in the Yellow Pages of your 'phone book.



Torsion-Aire Ride is the world's smoothest. It eliminates body sway and roll on turns . . . ends front-end dive on stops.

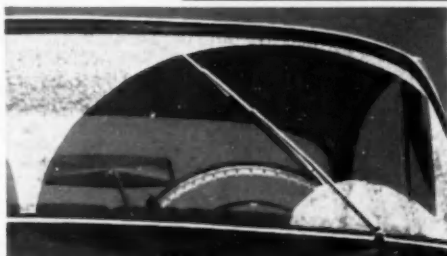


Total-Contact Brakes are famous in the industry. The linings wear evenly and last longer than those found on conventional brakes.

Lustre-Bond super enamel cuts down on upkeep costs. It resists scratches, goes years without waxing.



Parking brake is a separate, independent unit on the propeller shaft. It's not merely a cable hookup to rear service brakes.



16-inch electric windshield wipers keep a constant speed. They clean a larger area for better driver visibility.

Oriflow shock absorbers give 2½ times the peak load control of ordinary shock absorbers. Car levels out faster, smoother after a bump. →



A short 30-inch lift and a little bending are needed to load spacious 35.6-cubic-foot Plymouth trunk.



of all low-price fleet cars...

Only Plymouth's got ALL these features...and they're yours at no extra cost!

But these plus features are just part of the Plymouth savings story. Plymouth fleets cost less to operate and maintain. Gas mileage is UP, thanks to improved fuel distribution, carburetion and more economical warm-up. Oil consumption is DOWN, thanks to new seals and baffles. Engines are beefed up in every vital part to stay out of the shop. Routine maintenance operations are faster, easier to get cars quickly back on the job.

Come in, let your Plymouth dealer give you the full dollar-saving story on the greatest fleet car of them all!

Plymouth

Today's best fleet buy...tomorrow's best fleet trade



DESIGNED FOR FLEET SHOPS!

CLEAN CEMENT FLOORS

- Easily • Safely
- Economically



Compounded to meet the heavy-duty cleaning needs of automotive shops, **MAGNUS 92PR** offers these unbeatable advantages:

- **CLEANS, WHITENS AND HARDENS** unpainted cement floors to make future cleaning easier.
- **CUTS COSTLY LABOR TIME** by doing the hard work of cleaning for you.
- **NON-FLAMMABLE** to eliminate the fire and explosion hazards of gasoline or other volatile, flammable cleaners.
- **CUTS MATERIAL COSTS TO LESS THAN 5¢** for 100 SQUARE FEET.
- **NO TOXIC FUMES** — pleasant clean pine odor.



TRY IT AT OUR RISK

*Order a standard sized drum of Magnus 92PR, using it according to directions for 30 days. If at the end of that time you are not completely satisfied, simply return the unused portion for full cancellation of the invoice. You are the sole judge.

MAIL TODAY

MAGNUS CHEMICAL CO., INC.
38 South Avenue, Garwood, N. J.

Please ship a drum (150 lbs) of Magnus 92PR on your moneyback guarantee of satisfaction. ☐

Please send additional information on Magnus 92PR ☐

NAME

POSITION

COMPANY

ADDRESS

CITY STATE



magnus
CHEMICAL COMPANY INC.

AUTOMOTIVE CLEANING AND MAINTENANCE

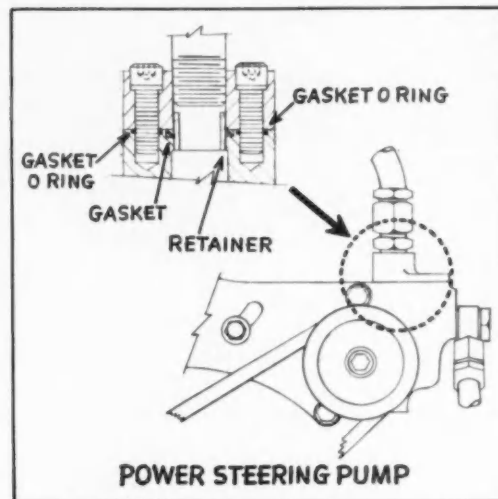
A WORLD-WIDE ORGANIZATION SPECIALIZING IN THE
CLEANING AND PROTECTION OF ALL SURFACES

CCJ AT YOUR SERVICE

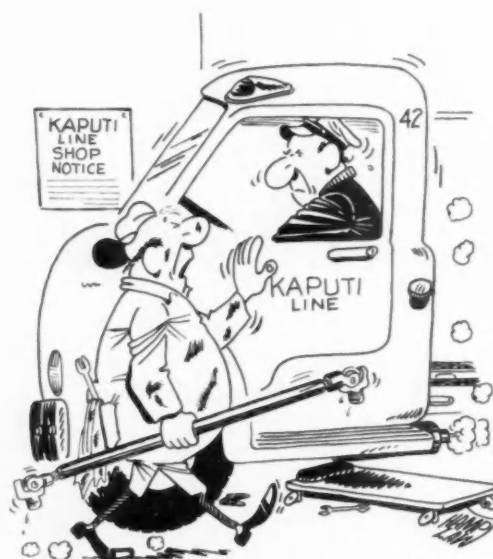
Continued from Page 24

IHC Checks Fluid Seepage

HERE IS HOW International corrects fluid seepage at power steering pump on Model Nos. VCO-195 and up. Install two extra "O" ring gaskets between the pump body and inlet connection adapter (see illustration). These

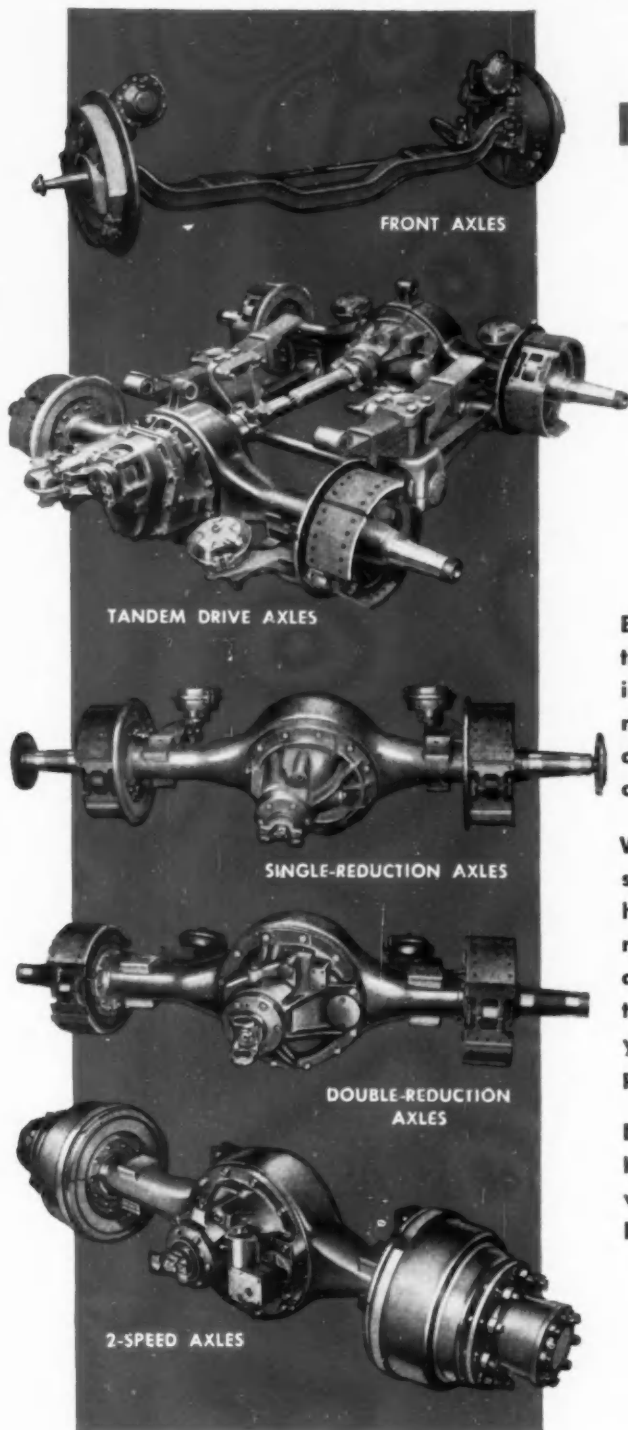


gaskets prevent seepage of fluid past the threads of the mounting bolts. Install these "O" ring seals (IHC Part No. 195 211-R1) whenever the power steering pump is overhauled.



"Shut 'er down, Buster—you ain't goin' nowhere."

For Top Performance and Lowest Cost Per Mile—



FRONT AXLES

TANDEM DRIVE AXLES

SINGLE-REDUCTION AXLES

DOUBLE-REDUCTION
AXLES

2-SPEED AXLES

**You Must Have the
RIGHT TRUCK
for the Job—**



**and the
RIGHT AXLE
on the Truck!**

**Pick the RIGHT AXLE
from Eaton's Full Line
of Types and Capacities**

Every hauler knows how important it is to buy trucks that are RIGHT FOR THE JOB. Dollars invested for ample capacity and the right equipment to handle the job, are paid back many times over—in reduced maintenance, lower operating costs, and longer truck life.

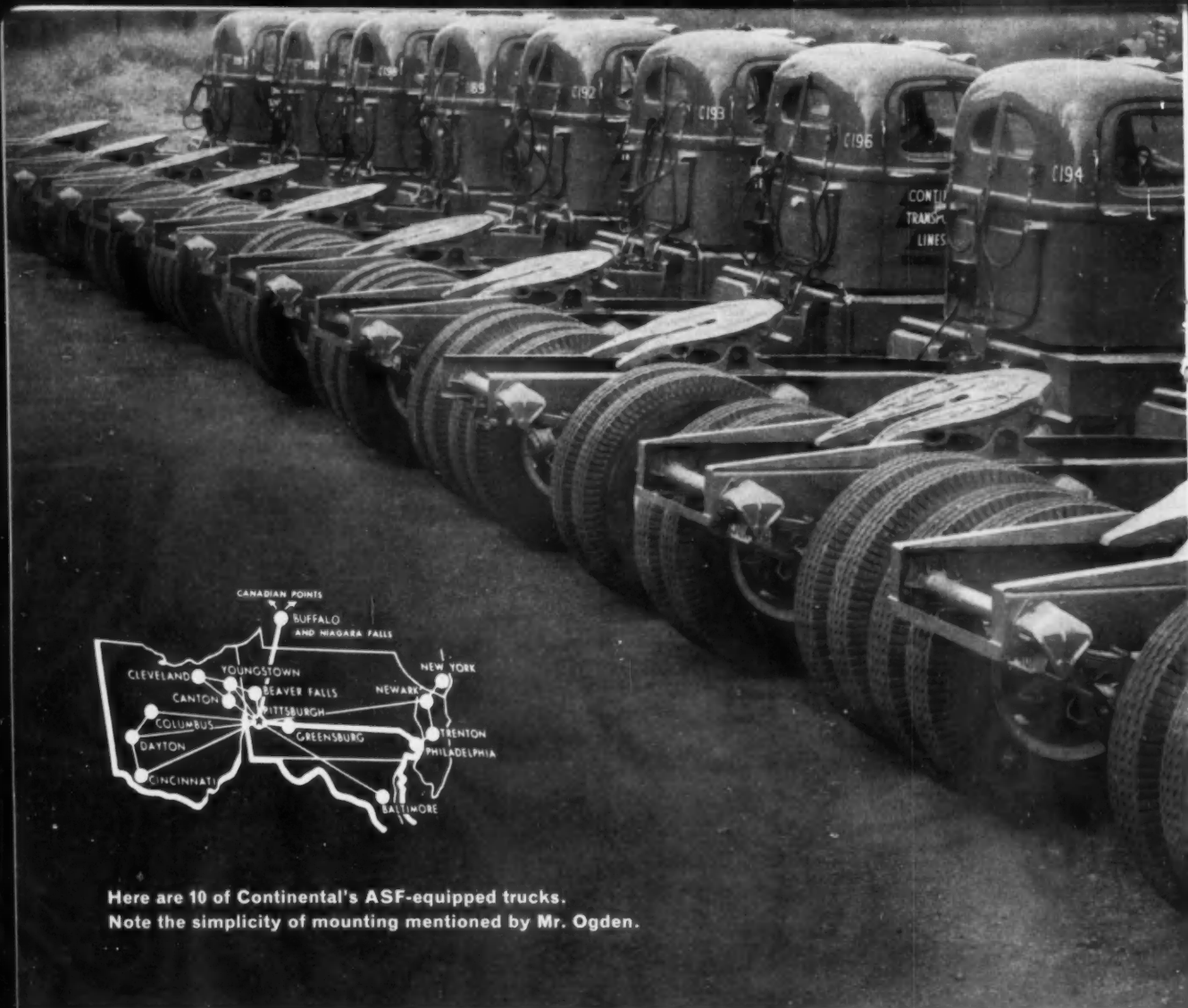
When you buy a truck, it is important that you specify the RIGHT AXLE for the job. Your kind of hauling may call for single reduction, double reduction or 2-speed—and perhaps tandem drive axles. For you there is an Eaton Axle of the right type and in the right size—backed by almost 50 years of axle manufacturing experience, and by proven performance in more than 2-million trucks!

Discuss your hauling job with your truck dealer—he'll be glad to recommend the Eaton Axle that will give you more and longer service at the lowest cost per mile.



EATON

— AXLE DIVISION —
MANUFACTURING COMPANY
CLEVELAND, OHIO



Here are 10 of Continental's ASF-equipped trucks.
Note the simplicity of mounting mentioned by Mr. Ogden.

"80¢ per 200,000 miles*... That's Continental's upkeep cost* on ASF 5th Wheels!"

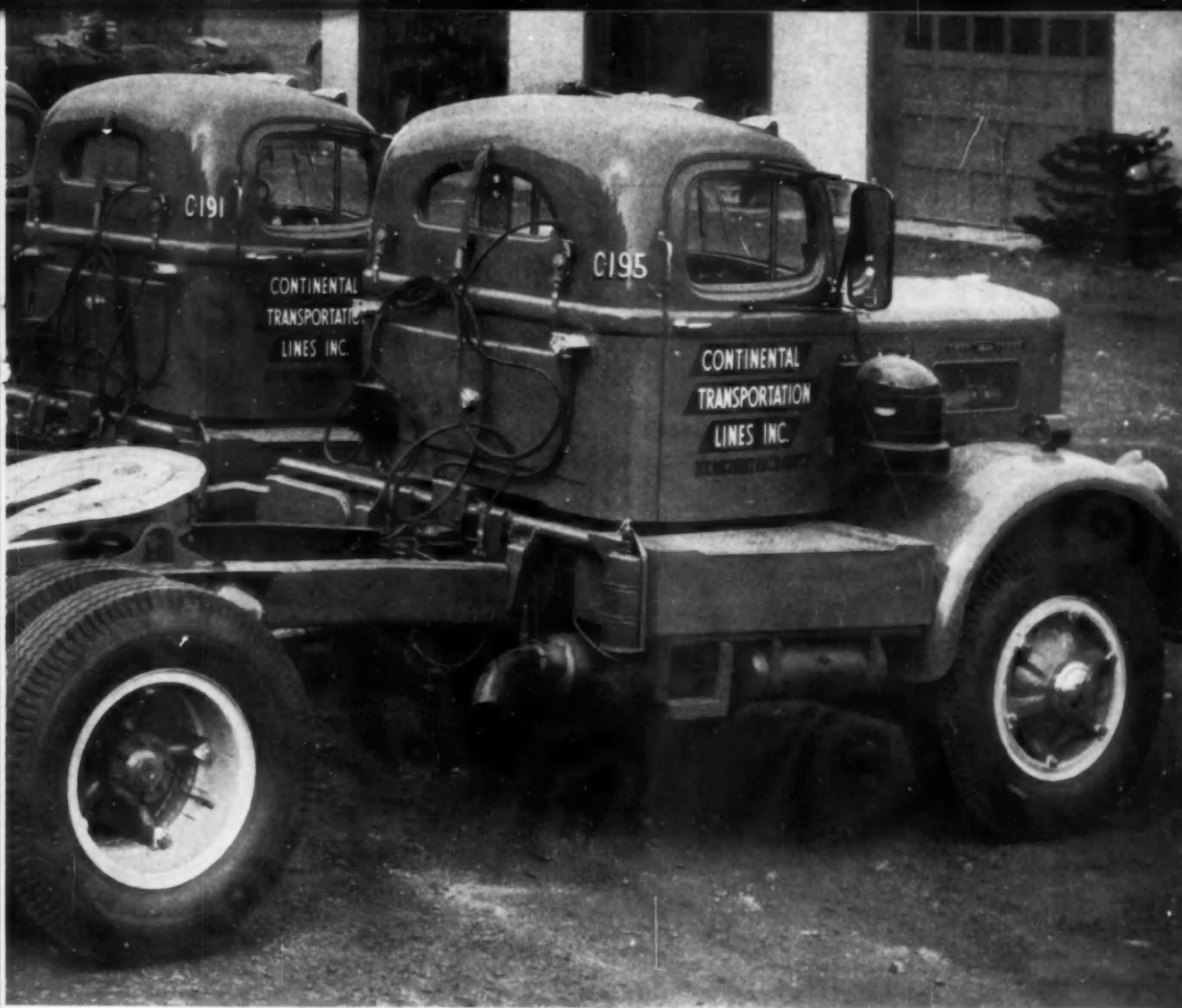
"And we like their SAFETY... when we lock them, we know they'll stay locked. Not one has failed in approximately 15 million miles!

"We like these wheels for many reasons," says Fred Ogden, Superintendent of Maintenance. "For one thing... little or no maintenance. Every 200,000 miles, we add a shim to take up play. It costs us 80¢, not counting labor, and that's about the extent of our ASF maintenance costs.

"We like the mounting simplicity of ASF wheels, too. No special mounting plates... just bolt the

broad base brackets to angle irons bolted directly onto the frame and that's it! We've never had one go wrong in all the mileage our trucks have logged with ASF 5th Wheels."

Continental started six years ago with only five ASF 5th Wheels. Those five gave such a good account of themselves that, inside of three years, a large percentage of Continental's fleet was ASF equipped. And so it has gone, in fleet after fleet... the safety, service, savings and stamina of ASF 5th Wheels make them their own best salesmen.



Mr. Fred Ogden, Superintendent of Maintenance for Continental Transportation Lines, says: "Most of our trucks are equipped with ASF 5th Wheels because actual on-the-road test sold us 100%! We will continue to install ASF Wheels on all new tractors and for replacement on older tractors that are not now ASF equipped."

*Make an investment in safety . . .
with*



safety 5th wheels

A product of American Steel Foundries, Hammond, Indiana

Only Perfect Circle gives you **2-WAY POWER PROTECTION!**

1. Perfect Circle Valve Seals

solve problem of excessive oil consumption past valves!

New rings and restored valve efficiency produce higher compression pressures—and higher deceleration vacuum. Increased vacuum draws oil through loose and worn valve guides. Stop this loss with *new* Perfect Circle Valve Seals!

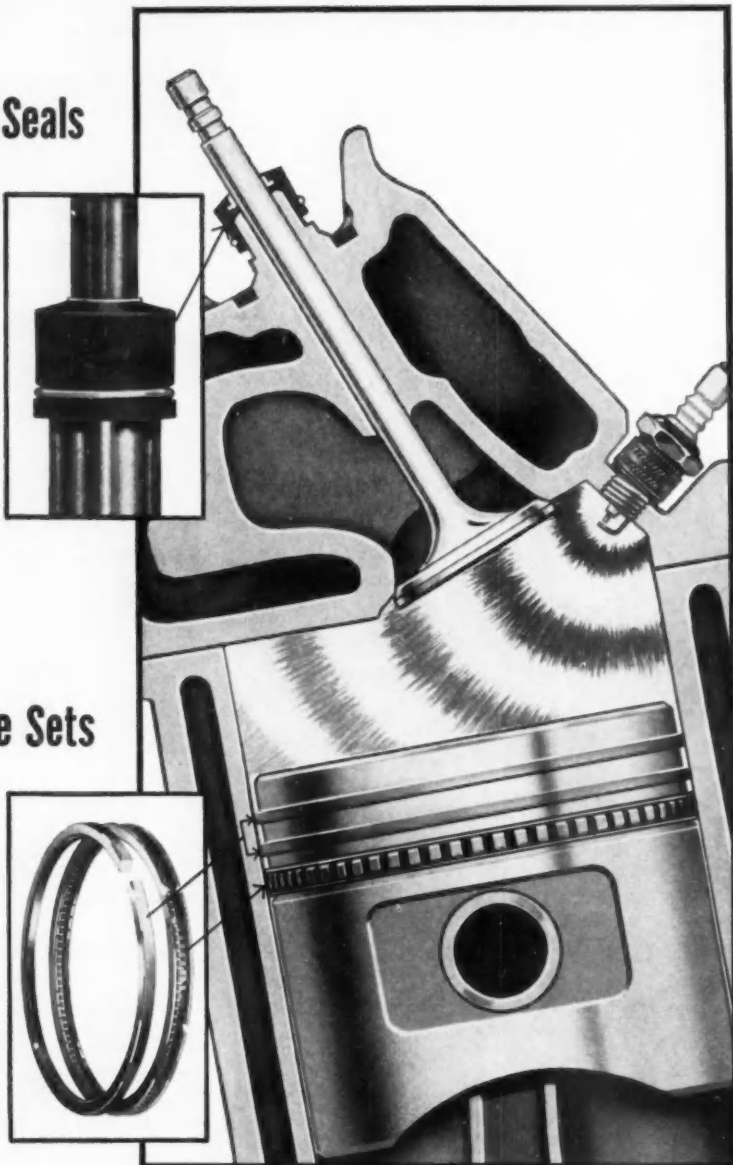
Insure satisfactory performance—
Install Perfect Circle Valve Seals on all re-ring jobs and all overhauls.

2. Perfect Circle 2-in-1 Chrome Sets

solve problem of excessive oil consumption past pistons!

2-in-1 Chrome sets provide the finest piston rings obtainable! Top rings and oil rings are plated with thick, solid chrome. Doubles life of cylinders, rings, pistons. No tedious break-in is necessary, rings are pre-seated at factory.

Insure satisfactory performance—
Install 2-in-1 Chrome sets for thousands of extra miles of power protection and positive oil control!



PERFECT

PISTON RINGS AND



CIRCLE

POWER SERVICE PRODUCTS

Hagerstown, Indiana

Don Mills, Ontario, Canada



UP FRONT WITH

MAY 1959 FLEET HIGHLIGHTS AS REPORTED BY COMMERCIAL CAR JOURNAL

Safety Reg Doings Affect "Out of Service," Brakes, Windshields

Interstate Commerce Commission says it won't change the Safety Regs to spell-out in detail what defects put a vehicle "Out of Service." Action leaves Sec. 196.5 as it now stands . . . lets the safety inspector decide if continued operation of the defective vehicle is likely to lead to an immediate accident.

Commission also has extended the time for comment from fleet operators on proposed changes to Secs. 193.42(c) and 193.48 (Oct. '58, page 33) to May 15. These rules specify on what axles brakes are required and how many must be operative.

American Trucking Assns. has asked ICC to modify its proposed changes on windshield requirements to put more emphasis on clear glass in front of the driver . . . less emphasis on other areas. ATA also asks that **all** windshield stickers be prohibited instead of allowing only one as the ICC proposes.

ICC Seeks to Increase Flexibility of Common Carrier Service

ICC is investigating possibility of liberalizing route and service restrictions of regular and irregular route motor common carriers of property. Net result, says the Commission could be better service, more economical operation, greater safety. Basically, the Commission has under consideration letting carriers use any route between authorized points or within authorized irregular route areas with or without regard to junction point restrictions. Further, carriers might be **required** to use (1) the shortest and safest route and/or (2) urban by-passes where practical. Commission is also considering dropping such irregular route restrictions as (1) usual operating patterns, (2) freight volume usually carried, (3) type of traffic, (4) facilities maintained, (5) habitual operation, (6) frequency of service, (7) operation between certain points, (8) operating schedules.

Is a New System for GVW Ratings Needed?

Motor Truck Committee of Automobile Manufacturers Assn. has asked Society of Automotive Engineers for a "recommended practice" on GVW ratings. AMA feels that if an industry-wide standard is not adopted, individual states will legislate performance standards . . . as in Pennsylvania where the law sets minimum gradeability and brake lining size in relation to GVW. If each state follows this lead, truck makers could face an all but impossible task in making models to meet the separate requirements . . . and fleet operators will face new barriers to interstate operation. Basically what's asked for is a standard for GVW ratings in relation to engine power (speed and gradeability) and braking . . . plus a guide so other components of the vehicle will not be overstressed under normal operation. Presently AMA is developing engine horsepower-weight ratios . . . and working with Truck-Trailer Manufacturers Assn. and brake makers on brake ratings and a brake-weight formula.

DETROIT DISPATCH

MAN-MADE RUBBER SAID to duplicate natural rubber is being used in truck tires by United States Rubber. Present production is limited (about 100 tires a day in 7.50-20 size). Maker says both lab and road tests show the new "polyisoprene" rubber "equal and in some cases superior" to natural rubber.

TIRE CORD RACE (Sept. '58, page 76) is still a hot one. Tyrex, Inc., owned by five rayon producers, took a flock of nylon, rayon and "Tyrex" cord tires out to Nevada, tested them in passenger car use at high speeds—up to 128 mph. Tests showed, says Tyrex, that "Tyrex" cord (1) gave almost $\frac{1}{4}$ better mileage than nylon, (2) had $\frac{1}{3}$ less growth, (3) had "negligible" groove cracking, (4) had only $\frac{1}{5}$ the "chunk-out" of nylon at high speeds.

ON THE TRUCK TIRE side, says Tyrex, nylon cord tires went 72.5 miles per 1,000-in. of tread wear as compared to 88.3 miles per 1,000-in. of wear for "Tyrex" cord truck tires. Also, according to the report, cross-sectional growth was 3.17 per cent for nylon, 2.12 per cent for "Tyrex." Over-all di-

ameter growth was 2.77 per cent for nylon, 1.41 per cent for "Tyrex." Tests were run on a single drive axle tractor and tandem axle trailer combination with only single tires used on the dual wheels. Loads were 120 per cent of Tire & Rim Assn. recommendations at the start of the tests, were increased 10 per cent every 5,000 miles up to 150 per cent.

TIRE CORDS ALSO came in for some attention at last month's Passenger Car, Body and Materials Meeting of the Society of Automotive Engineers meeting in Detroit. J. J. Robson and R. S. Lee of Firestone Tire & Rubber reported on tests on the ride and handling of tires made with different cords. One major conclusion drawn: "The difference between nylon and viscose-type cords are comparatively small insofar as the ride and handling of the vehicle are concerned."

SIZE AND WEIGHT LIMITS ARE being discussed by fleet operators and vehicle makers . . . as a result of American Assn. of State Highway Officials proposal to revise its standards

WASHINGTON WATCH

FUEL TAX INCREASE is now officially before Congress. S1293 boosts the federal tax on gasoline, diesel and other fuels to $4\frac{1}{2}$ ¢ per gal. It calls for the $1\frac{1}{2}$ ¢ a gal increase to remain in effect until July 1, 1964. However, an alternative solution to finding the money needed to keep the highway program on schedule has been introduced into the House. . . .

HR4389 WOULD earmark all federal highway use tax and automotive excise tax revenues for the Highway Trust Fund. This would add about \$1 $\frac{1}{2}$ billion a year to the Fund . . . enough, according to earlier reports, to do the job. On the other hand, considerable pressure is being brought on Congress to reduce or eliminate the excise taxes. . . .

HR3658 WOULD cut the tax on all vehicles, parts and accessories to 5 per cent. . . . retroactive to Jan. 1, 1959. Further, it provides that this 5 per cent and all other present excise taxes on automotive products would expire on July 1, 1972.

LEASING REGS DO NOT apply to private trucks hauling fresh meat products says Interstate Commerce Commission. Decision permits trip leasing of these vehicles to common and contract carriers. Basis of the ruling is a finding that livestock—and fresh meat (as one of its products)—is a perishable item and thus exempt from the leasing regs under Sec. 204(f)(1) of the IC Act.

HIGHWAY SAFETY AND what the federal government can do about it is the subject of an extensive report submitted to Congress last month by the Dept. of Commerce. Two specific proposals are made. First is that a federal "Driver Records Clearance Center" be set-up. Each state would report to it all drivers who have had their licenses suspended or revoked. (Two bills are now before Congress providing for such a Records Center—HR4946 and HR5436.) Second recommendation is that an Interdepartmental Highway Safety Board be established. This would "coordinate all official federal traffic safety programs and all re-

(AASHO Code). There seems to be general agreement on an 102-in. width, 13½-ft height. Length discussions are not so generally agreed. Most would like to see a fixed overall combination length but no fixed trailer limit.

AXLE WEIGHTS OF 22,400 lb gross for a single axle and 40,000 lb for a tandem seem to be the prevailing opinion. However, many fleet operators feel that the results from the AASHO Road Test (now rolling at Ottawa, Ill.) will have to be in before agreement can be reached.

PENNSYLVANIA TURNPIKE is keeping an eye open for unsafe vehicles. Latest report says in a two-week period, toll collectors watched 20,000 vehicles enter, rejected only 98 as unfit and 75 for faulty lights.

TRAILER USERS IN the east have a new source of supply. Highway Trailer has just opened a new plant in Hazelton, Pa., with Governor Lawrence cutting the ribbon. It's set up to produce a full line of trailers plus Highway's new line of cargo containers.

search activities of the federal government in the field of traffic safety."

HOWARD PYLE, former governor of Arizona and White House aide in charge of federal-state relationships, becomes new head of the National Safety Council. He succeeds Ned Dearborn who retired recently because of ill health.

GENERAL TIRE & Rubber continued its support of the ATA Foundation's truck public relations program last month with the use of thousands of highway billboards in and around 550 urban areas to carry the message, "As Trucks Go . . . So Goes the Nation."

PUBLIC RELATIONS ALSO were encouraged last month with the announcement of the winners in the second annual Great Dane Trailers-ATA Foundation fleet public relations contest. First prize winners (\$1000) in each size group were Niedert Motor Service, DesPlaines, Ill., Dan Dugan Oil Transport, Sioux Falls, S. D., and Spector Freight System, Chicago.

TRUCK TONNAGE

JANUARY TRUCK TONNAGE went 11.7 per cent better than Jan. '58 . . . reports American Trucking Assns. Research Dept. All but one region (Pacific—off 2.7 per cent) registered gains in January. Largest—16.1 per cent—was reported by the Central region, which handles nearly 30 per cent of the nation's total truck tonnage. Big boosts were also chalked-up in the Southern and Southwestern regions—14.3 per cent each, and in New England—up 12.4 per cent. For the full year 1958 as compared to 1957, Northwestern region made the biggest gain—up 7.6 per cent, with Southern region second—up 6.3 per cent.

Month	% Change from Previous Month	% Change from a Year Ago
January, 1959	+ 2.7	+11.7
Full Year, 1958	....	- 1.1
4th Quarter '58	....	+ 6.2
December, 1958	+ 3.3	+17.4
November, 1958	+16.1	+ 0.8
October, 1958	+11.3	+ 3.2
3rd Quarter '58	....	- 2.1
September, 1958	....	+ 2.3
August, 1958	+ 0.2	- 6.8
July, 1958	- 2.4	- 0.3
2nd Quarter '58	....	- 2.6
June, 1958	+ 3.2	+ 5.3
May, 1958	+ 2.6	- 5.0
April, 1958	+ 1.9	- 5.4
1st Quarter '58	....	- 5.6
March, 1958	+ 8.6	- 7.6
February, 1958	- 8.8	- 6.1

TRUCK AND BUS PRODUCTION

Make	Weeks Ending		Year to Date	
	Mar. 14	Mar. 7	1959	1958
Chevrolet	7,310	6,671	81,388	81,771
G. M. C.	1,666	1,750	18,781	19,586
Diamond T	140	141	1,443	1,182
Dodge	60	70	724	624
Dodge and Fargo	1,845	1,401	18,235	11,473
Ford	6,480	6,161	68,820	81,006
F. W. D.	31	16	220	310
International	3,508	3,320	26,162	23,783
Mack	367	312	3,660	3,080
Studebaker	375	424	3,610	2,224
White	397	361	3,688	4,012
Willys	2,517	2,828	23,612	17,104
Other Trucks	60	60	615	686
Total—Trucks	24,786	23,235	246,635	190,811
Buses	75	35	468	776
Total—Trucks and Buses	24,861	23,290	247,303	191,587

IN THIS ISSUE



... the 23rd FLEET REFERENCE ANNUAL ... you'll find the latest and most complete facts so you can ...

CHECK YOUR TUNE-UP—All-in-one-place maintenance service data, front-end geometry, lube capacities page 73

CHECK YOUR FACTS—Quick reference statistics on trucks, buses, trailers, passenger travel, tonnage page 203

CHECK YOUR REGS—State size and weight limits, safety equipment, vehicle inspection, mud guards page 221

CHECK YOUR SPECS—Selection data on new trucks, buses, engines, transmissions, axles, suspensions page 255

CHECK YOUR KNOW-HOW—Maintenance manuals and training films for efficient mechanic training page 297

The Road Ahead



NATIONAL TANK TRUCK CARRIERS conference of ATA holds its annual convention and tank truck equipment show early next month (May 3-6) at the Shoreham Hotel, Washington, D. C. In addition to important shirt sleeve sessions on tank truck fleet operating problems, NTTC members will get a first look at a new tank truck safety inspection training film . . . hear Interstate Commerce Commissioner R. L. Murphy discuss "Problems of Enforcement."

TRUCK-RAIL ANTI-TRUST CASE APPEAL IS now on the court calendar. Opening day is June 8 in the U. S. Court of Appeals for the Third Circuit. Railroads have appealed to have the District Court decision finding them guilty reversed. Truck operators are asking the court to rule that they can collect actual damages rather than the nominal damages of 18 cents awarded by the lower court.

NATIONAL TRUCK ROADEO dates this year are Sept. 24-26. Final details have been worked-out to hold it in the Kentucky Exposition Center, Louisville, Ky. Usually held in conjunction with American Trucking Assns.' annual convention, decision was made to hold it in a more central location than the convention site (Los Angeles, Cal.).

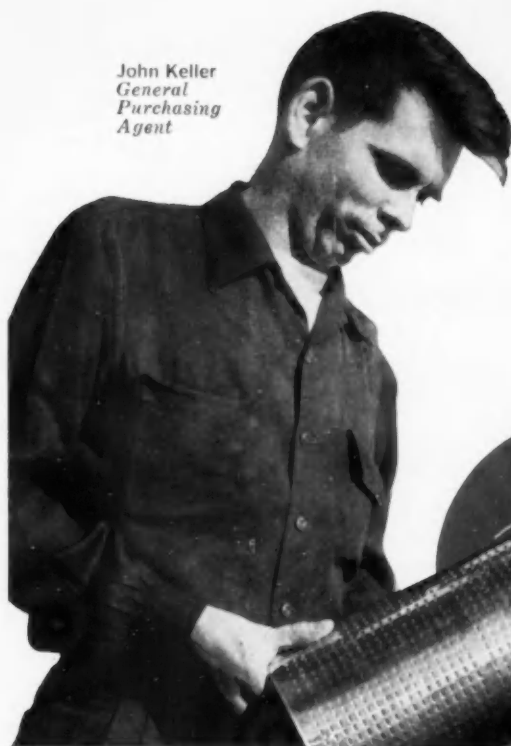
ROADEO COMMITTEE ALSO OK'd (1) limiting the number of competitors in the finals to two drivers in each class, (2) minimum length for single-axle semi-trailers of 33 ft, tandem-axle semi-trailers of 35 ft, (3) special written tests, equipment checks and driving problems for competitors in specialized classes (such as tank trucks or automobile transports), (4) increasing the possible maximum point score to 500—100 for driver appearance and interview, 20 for equipment defects, 80 for written examinations, 300 for field driving. New maximum applies to National Roadeo only. Remaining as standard for state truck roadeos is the present 400-pt maximum.

RAILWAY EXPRESS for sale? National Assn. of Motorbus Operators reports several eastern railroads have threatened to withdraw from the rail-owned subsidiary. One line, New York Central, has made it definite. It stops hauling for Railway Express on Jan. 1, 1960. One plan under consideration is the sale of the operation to freight forwarders.

OPTIMISM IS the word when comparing 1959 production to 1958's . . . as the chart below indicates. Early reports on the first two months of '59 as compared to Jan. and Feb. '58 sound even better. Chevrolet says its truck sales for the period were up 44 per cent, Dodge says 45.7 per cent, Ford reports about 39 per cent and GMC 40 per cent.

In thousands of units, except bus sales are in actual numbers	New Truck Registrations	Truck Factory Sales—Domestic	Truck Trailer Shipments	Bus Factory Sales—Domestic	Truck and Bus Tires		
					Replacement Shipments	Original Equip. Shipments	Inventory End of Jan.
	January	January	January	January	January	January	
1959	61.6	61.4	4.6	112	714.1	329.0	2401.4
1958	52.4	64.0	3.3	293	673.6	276.7	3470.5

John Keller
General
Purchasing
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Bill Adcock
Superintendent
of Motor
Maintenance



Bill Adcock, Supt. of Motor Maintenance • RINGSBY TRUCK LINES, Inc., says:

“DIESELPAK CUTS ENGINE MAINTENANCE and gives superior oil filtration at a cost less than 4¢ per 100 miles”

plus 35% more effective cleaning ability
than 2nd leading pack!

Leading truck lines select filters for their equipment based on actual results. *Comparison tests* prove DIESELPAK offers 35% to 95% more cleaning ability than any substitute pack.

DIESELPAK cleans more oil *faster* and keeps it clean *far longer*. ARE YOU GETTING THE DIESELPAK PROTECTION RECOMMENDED FOR YOUR EQUIPMENT?

Compare Ringsby experience as reported by Bill Adcock—Supt. of Motor Maintenance—

“—approximately 10,000 miles before we change oil and Dieselpak”

“DIESELPAK is like an insurance policy—assures us of clean lube oil with excellent lubricating qualities for about 10,000 miles”

“Superior oil filtration at a cost less than 4¢ per 100 miles”

Next time you change oil insist on genuine Luber-finer DIESELPAK—get 35% more cleaning ability regardless of conditions.



IT'S WHAT'S INSIDE THAT COUNTS! THERE IS NO SUBSTITUTE FOR DIESELPAK SUPERIOR CLEANING ABILITY

Luber-finer

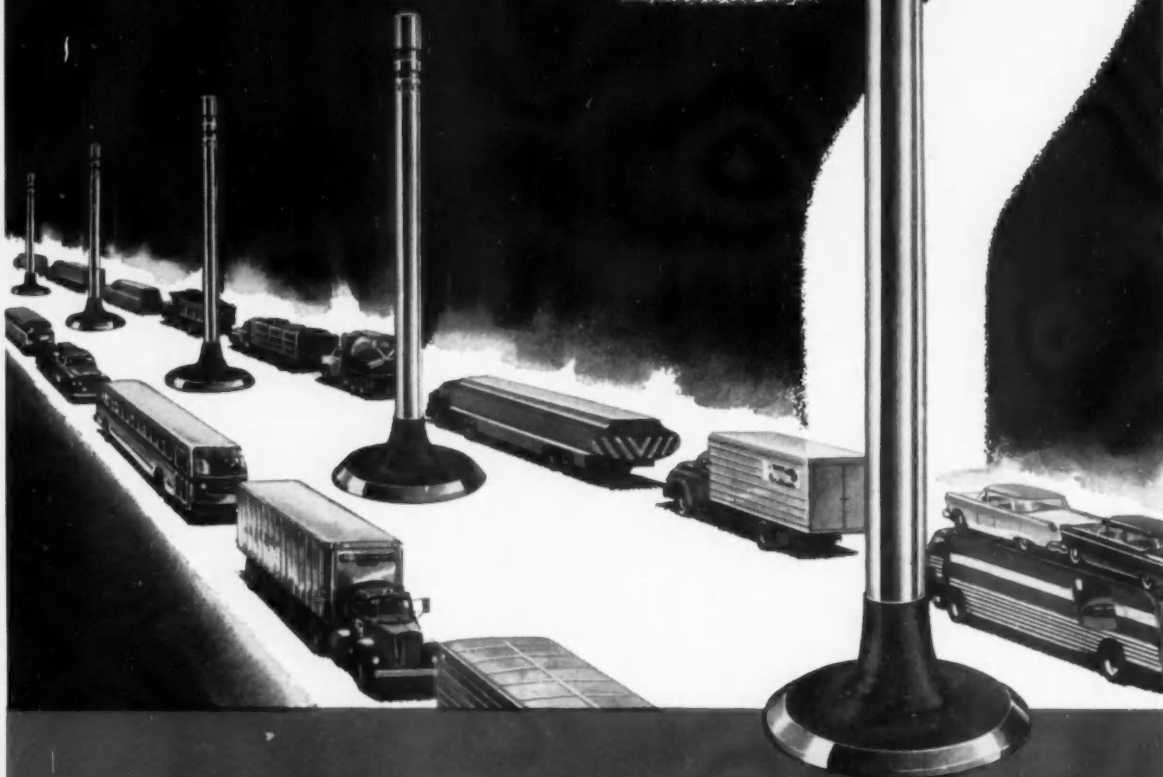
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When the going gets rough...

it takes a valve designed for performance right from the alloy up to do the job! That's why "EATON" brand valves are made only of special heat resistant alloy steel—made for the toughest possible conditions.

"EATON" valves give you such design extras as Eatonite hard facing... sodium cooling... rotation features. These famous "EATON" brand valves are available only through your McQuay-Norris wholesaler.*

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WALTER is your answer!**



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Walter Oilfield Service Truck

WALTER trucks do the jobs other trucks can't handle—keep going on soft dirt, mud, sand, snow, ice and slippery grades when all other trucks slip, stall and bog down.

100% four wheel traction is the answer—provided by the unique WALTER 4-Point Positive Drive system. Three automatic locking differentials concentrate engine power on the wheels having most traction—eliminate wheel spinning—assure constant drivepower.

Get complete facts on WALTER 4-Point Positive Drive for high-traction, stall-proof operation on difficult ground conditions. See your WALTER dealer—or write us for literature.



Walter Fire Fighter



Walter Tractor-Trailer Combination



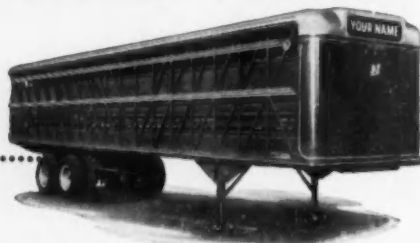
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SNOW FIGHTERS® • TRACTOR TRUCKS**

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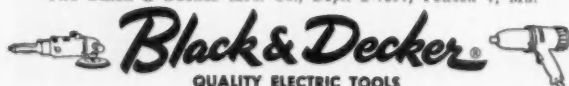
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DATES and DOINGS

APRIL

- 16—Pennsylvania Motor Truck Assn., Spring Workshop, Hotel Webster Hall, Pittsburgh, Pa.
- 16-18—New Jersey Motor Truck Assn., Convention, Claridge Hotel, Atlantic City, N. J.
- 21-23—American Transit Assn., Regional Conference, Hotel Chase, St. Louis, Mo.
- 26-30—Operations Council, American Trucking Assns., Annual Spring Meeting, Leamington Hotel, Minneapolis, Minn.

MAY

- 3-6—National Tank Truck Carriers, American Trucking Assns., 11th Annual Convention and Tank Truck Equipment Show, Shoreham Hotel, Washington, D. C.
- 4-6—American Transit Assn., Regional Conference, Vancouver Hotel, Vancouver, B. C.
- 7-10—ATA Foundation, American Trucking Assns., Board of Directors Meeting, Ft. Lauderdale, Fla.
- 8-9—Kentucky Motor Transport Assn., State Convention, Sheraton Hotel, Louisville, Ky.
- 10-16—National Transportation Week.
- 11-13—Ohio Trucking Assn., Convention, Niel House Hotel, Columbus, Ohio.
- 12-14—Council of Safety Supervisors, American Trucking Assns., Spring Meeting, Skirvin Hotel, Oklahoma City, Okla.
- 14-23—International Petroleum Exposition and Congress, Tulsa, Okla.
- 17-20—Automotive Engine Rebuilders Assn., Annual Convention, Royal York Hotel, Toronto, Ontario, Canada.
- 17-21—National Accounting and Finance Council, American Trucking Assns., Annual Meeting, Hotel Somerset, Boston, Mass.
- 19-22—American Transit Assn., Special Executive Conference and Committee on Transit Pans Meeting, The Greenbrier, White Sulphur Springs, W. Va.

JUNE

- 14-19—Society of Automotive Engineers, Summer Meeting, Chalfonte-Haddon Hall, Atlantic City, N. J.
- 18-19—Private Truck Council of America, Board of Directors Summer Meeting, The Greenbrier, White Sulphur Springs, W. Va.
- 19-20—Pennsylvania Motor Truck Assn., Annual Meeting, Bellevue-Stratford Hotel, Philadelphia, Pa.
- 21-26—Air Pollution Control Assn., Annual Meeting, Statler Hotel, Los Angeles, Cal.
- 24-27—Independent Garage Owners of America, Annual Convention, Albany Hotel, Denver, Colo.

JULY


- 13-15—Truck Trailer Manufacturers Assn., 11th Summer Meeting, The Homestead, Hot Springs, Va.

AUGUST

- 10-13—Society of Automotive Engineers, National West Coast Meeting, Hotel Georgia, Vancouver, B. C.

SEPTEMBER

- 14-17—Society of Automotive Engineers, National Farm, Construction and Industrial Machinery Meeting, Production Forum and Display, Milwaukee Auditorium, Milwaukee, Wis.
- 24-26—American Trucking Assns., National Truck Rodeo, Coliseum of the Kentucky Exposition Center, Louisville, Ky.



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America's sold on the car built for people. And your salesmen will be, too! They'll like the easy way Ford handles people . . . the wide-opening, wider doors . . . the foam-padded, comfort-fitted seats in most models . . . the greater stretch-out space *inside* and full hat room . . . the smooth, people-pampering ride.

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No wonder so many business fleets are buying the world's most beautifully proportioned cars.

59 FORD FLEETS

LUBE LOGIC

Refresher on

THERE'S A RIGHT WAY TO HAND-PACK BEARINGS

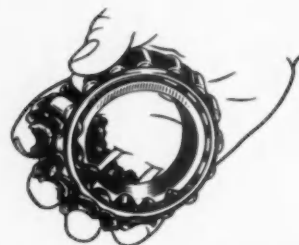
Although it seems like a simple job, there's a certain knack to packing wheel bearings if you do it by hand. Doing it the right way insures getting the grease in all the right places—and can add thousands of miles to bearing life.



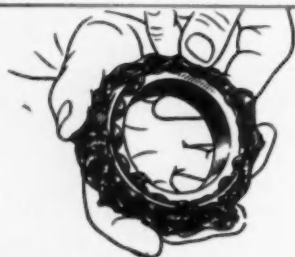
1. **PLACE A SMALL AMOUNT** of Texaco Marfak Heavy Duty on the fingers of one hand. Hold bearing (cleaned with kerosine and thoroughly dried) as shown—small diameter facing out.



2. **TURN BEARING OVER** (so large diameter faces out) into hand holding grease. Work lubricant into spaces between rollers by kneading with your fingers until it comes through on small diameter side.



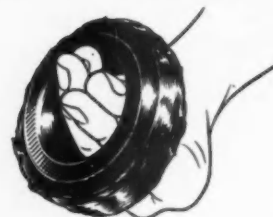
3. **WORKING GREASE THROUGH** to small diameter side assures complete packing. Repeat working-in operation until all spaces between rollers are filled.



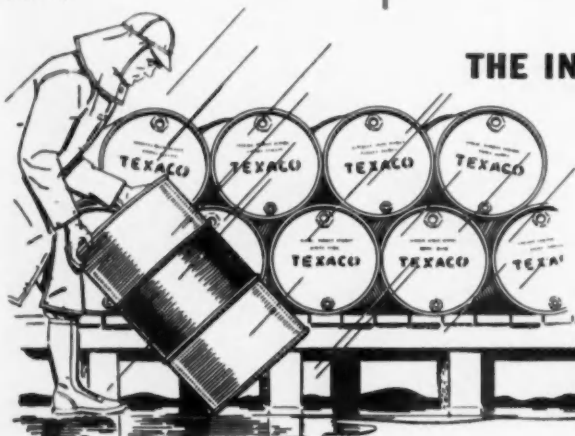
4. **ALL SPACES HAVE NOW BEEN PACKED.** Always work in steps, using a small amount of Marfak each time. Too much will cover bearing, prevent telling when grease is worked in properly.



5. **SPREAD ADDITIONAL GREASE** around the outside, holding bearing as shown. Use enough to cover the tops of rollers with about 1/8-inch of Marfak. Spread evenly and smoothly.



6. **HERE'S THE COMPLETED JOB,** properly packed with Texaco Marfak Heavy Duty. Such a bearing will have thousands of miles of added life—safely allow you to stretch repacking intervals.



THE INSIDE STORY ON OUTSIDE STORAGE

You're short-changing yourself if you skip these simple precautions: Drums stored outdoors should be placed on their sides. When stored on end, expansion and contraction through temperature changes can suck in rain water that collects on top of the drum.

Want to warm up lubricants that have become stiff from cold? *Don't* heat them with an open flame. You might melt the sealing compounds, and the drum will leak. You might also damage the product with too much heat in one spot. Put the drum indoors for a while before using.

good maintenance practice



OIL GAUGES SPEAK A LANGUAGE ALL THEIR OWN

Look to your oil gauge pressure for clues to a variety of potential engine ailments.

For example:

LOW

1. Clogged oil pump screen.
2. Excessive main, con-rod, camshaft or rocker arm bearing clearances.
3. Clogged full-flow filter, if by-pass isn't working.
4. Excessive dilution of oil with fuel.
5. Enlarged squirt holes.
6. Loose connections or cracks in oil line.

LOW OR HIGH

1. Faulty gauge.
2. Ineffective oil cooler, depending on type, may keep oil too cold or provide insufficient cooling.

HIGH

1. Oil with viscosity too high for climate.
2. Sludge and contamination in the oil.
3. Clogged oil passages on the pressure side.

LOW OR ERRATIC

1. Faulty oil pump.
2. Restrictions in oil pan, or oil too viscous to keep oil pump intake supplied.

HIGH, LOW OR ERRATIC

1. Improper setting or failure of pressure relief valve.

NO MOVEMENT OR DELAYED ACTION

1. Clogged line to gauge.

ERRATIC, LOW, THEN NONE

1. Crankcase oil level just at or below oil pump pickup.

LOW OR NONE

1. Oil pump pickup stuck high.



ARE YOU ASKING TOO LITTLE OF YOUR ENGINE OIL?

You are if you think its only function is to reduce engine wear by cutting friction. Here are some of the other valuable functions that oil performs in your engine:

It's a coolant, carrying excess heat away from bearings, valves and pistons;

It's a sealer, closing the gap between piston ring and cylinder wall so engine compression stays high;

It's a full-time, automatic engine-cleaner, preventing combustion products from sticking to engine parts;

It's a rust-preventive, protecting engine parts from corrosion whether the engine is running or idle.



TEXACO AUTOMOTIVE ENGINEERS

Every month we'll bring you a batch of "sleepers," little angles, so easy to overlook, where big savings in money and time can be made. But month in and month out, your local TAE is the best source of money-saving lubrication ideas. Don't forget that "Lubrication is a major factor in cost control."

The Texas Company, 135 East 42nd Street, New York 17, N. Y., Dept. CCJ-21.

REVIEWING THE BEST IN CURRENT PUBLICATIONS ON MAINTENANCE, EQUIPMENT
AND SAFETY OF INTEREST TO TRUCK, BUS AND CONSTRUCTION FLEET OPERATORS

How to Stay Alive on Super Roads

*From Commercial Car Journal
56th & Chestnut Sts., Philadelphia 39, Pa.*

There's more to staying alive on the new Super Roads than most people think. If you read this timely article in last month's CCJ, you'll agree it has a lot of valuable safe driving techniques you want your drivers to know—especially drivers who travel the Super Roads regularly. Reprints of the Super Roads article are now available. Price is 10¢ each up to 99. For larger orders, price is \$8.00 per hundred.

ICC Revises System of Accounts

*From Superintendent of Documents
Government Printing Office, Washington 25, D. C.*

Here's the latest revision of accounting regulations prescribed for Class I and Class II common and contract motor carriers. Full title of the booklet is "Uniform System of Accounts for Class I and Class II Common and Contract Motor Carriers of Property, Issue of 1958, Revised to Jan. 1, 1958." When ordering, give Catalog No. IC 1 mot.6:P94/3. Price is 45¢.

Guide Gives Hydraulic Brake Service

*From World Bestos
New Castle, Ind.*

World Bestos is offering a new illustrated booklet covering 20 types of hydraulic brakes used on cars, trucks and buses from 1936 to present. Detailed step-by-step instructions cover brake adjustments, relining and troubleshooting. Also included are basic instructions for overhauling master cylinders and wheel cylinders, and how to adjust six types of drive shaft-type brakes. It's free.

Air Cargo Lines Added to Directory

*From Official Motor Carrier Directory, Inc.
1025 W. Congress Pkwy., Chicago 7, Ill.*

Because of the increase in coordinated motor-to-air freight transportation service, the Official Motor Carrier Directory released last month has included a new section on air cargo carriers. It now lists all major scheduled U. S. airlines offering direct service on air shipments including addresses, phone numbers, insurance and tariffs. Subscription price remains the same—\$10.00 a year with revised issues published spring and fall.

How To Choose Reefer Equipment

*From Commercial Car Journal
56th & Chestnut Sts., Philadelphia 39, Pa.*

Here's a 14-page reprint of CCJ's special report as it appeared in the February '59 issue. If new refrigerated truck or trailer purchases are in your future, you'll find this study particularly helpful. Report tells you what you need to know about body design, insulation, air circulation, and refrigeration systems. It will help you to choose wisely, get what you need for your particular operation. Price is 25¢ each, quantity discounts on request.

Grinding Booklet Boosts Safety

*From the Grinding Wheel Institute
2130 Keith Bldg., Cleveland 15, Ohio.*

This is the Institute's latest safety booklet. Full name is "Safety Recommendations for Grinding Wheel Operation." In it you'll find strength and rpm ratings of various grinding wheels and grinding materials, proper mounting procedures, and recommended safety guards. There's also a "do's and don'ts" guide for safe grinding. Drop a line to the Institute for your free copy.

Film and Booklet Explain Starters

*From Delco-Remy Division
General Motors Corp., Anderson, Ind.*

A new color strip film and booklet called "The Cranking Circuit", explains in simple terms the various components in the starting system. Included are the starter motor, Bendix drive, overrunning clutch drive, and solenoids. Both the film strip and booklet are well suited for mechanic training. Film with accompanying record is offered on a loan basis. The booklet is free.

How to Make Fiberglass Cab Repairs

*From The White Motor Co.
Cleveland 1, Ohio.*

With the trend to lightweight trucks, many makers are using fiberglass in cabs or fenders. White has recently published a 16-page manual giving step-by-step instructions on fiberglass cab repair procedures. The new White 5000 Series with fiberglass cab is shown in detail. Fleet operators having trucks with fiberglass components will find the manual useful and informative. Write White for copies.



Less wear from heavy loads and rough roads with

MULTI-PURPOSE GREASE H

Here is one grease for every fitting, for every truck in your fleet. Multi-Purpose Grease H takes the place of three or more "special purpose" greases and gives better performance.

Multi-Purpose Grease H reduces wear, clings strongly to metal yet works freely for positive action. It withstands pressures from heavy loads and resists "squeezing out" under roughest road conditions. It seals out dust and resists washing of water. For longer mileage from all parts, specify Multi-Purpose Grease H!

New! The Esso Fleet Check System takes all the guesswork out of preventive maintenance. It contains all the records and forms you need for your fleet, whether it be trucks or buses. If you operate a fleet in the area where Esso products are sold, contact your nearest Esso Office, or write: Fleet Engineering Service, Room 454, Esso Standard Oil Company, 15 West 51st Street, New York 19, New York.



In Industry after Industry... "ESSO RESEARCH works wonders with oil"

all fleet trailers **DEMAND DUAL WHEEL FREEDOM**

The Turn Being Taken in the picture sequence at the right is just a quarter turn. Actual measurements *prove* that nineteen inches of differential freedom is necessary to prevent a skidding action by either tire. In a full turn, the tires would require over 6 feet of complete differential freedom. Without it, you simply destroy tires, consume excess gas, wrack the chassis and lose a safety margin in traction.

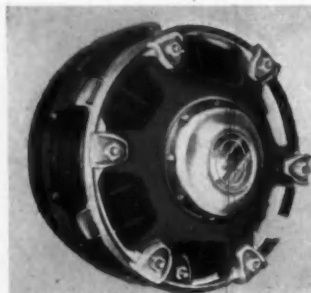
What The Pictures Reveal — Here you see individual freedom of movement which *each* tire on a dual wheel *requires*. Up to now, you haven't had this freedom, so its equivalent just went up in smoke, heat, drag, scuff and torque. You destroyed the tires by excessive heat and abrasion rather than normal wear. You have loaded up your power plant with rigidly mounted wheel resistance to consume and waste excessive gas.

Why All These Miracles? — Because now the dual wheels are free to rotate independently, and thereby get rid of all the scuff, drag, heat and inherent frictional resistance that goes with ordinary rigid mounting. The fundamental engineering error in rigid mounting has been permanently corrected by Differential Dual Wheels.

The Fleet Owner Can Do Something About It — If you want to *double* the tire life on all your dual trailing axles — put on Differential Dual Wheels. If you want to reduce the gas consumption 5.4 to 13 per cent — put on Differential Dual Wheels. If you want to improve the total efficiency, balance and maneuverability of your vehicles — put on Differential Dual Wheels.

Remember — Dual wheels positively require this freedom *every minute* of their operation! They need it on every kind of turn and on the straight-a-way where continuous variations of road bed or crown impose a different and individual rolling radius on each of the several tires.

Differential Dual Wheels are the only duals that provide independent tire rotation . . . therefore automatically save enormous quantities of fuel and rubber and pay for themselves over and over again!



FOR COMPLETE INFORMATION, WRITE
DIFFERENTIAL WHEEL DIVISION

Anderson-Bolling Mfg. Co.
GRAND HAVEN, MICHIGAN



MAKE YOUR MOTTO "FOR SAFETY'S SAKE WE SELL THE BEST . . . DELCO BRAKE FLUIDS"



sell safer stops . . .

DELCO SUPER 11

with HTD extra heavy duty brake fluid
exceeds new S.A.E. 70 R3 specifications

Here is an all-weather, all-climate hydraulic brake fluid that surpasses S.A.E. 70 R3 specifications. With Delco Super 11, improved with HTD Extra Heavy Duty Brake Fluid you can assure both passenger and commercial vehicle customers of more positive protection against the hazard of brake failure due to vapor lock.

AND HERE'S A BIG PLUS! As in past years, all new General Motors cars for 1959 have Delco Super 11 as original factory equipment!

So for the quick, sure-footed response motorists want, stock-up with Delco Super 11. Available throughout the United Motors System or at any General Motors car and truck dealer in sizes ranging from pints to 54-gallon drums.

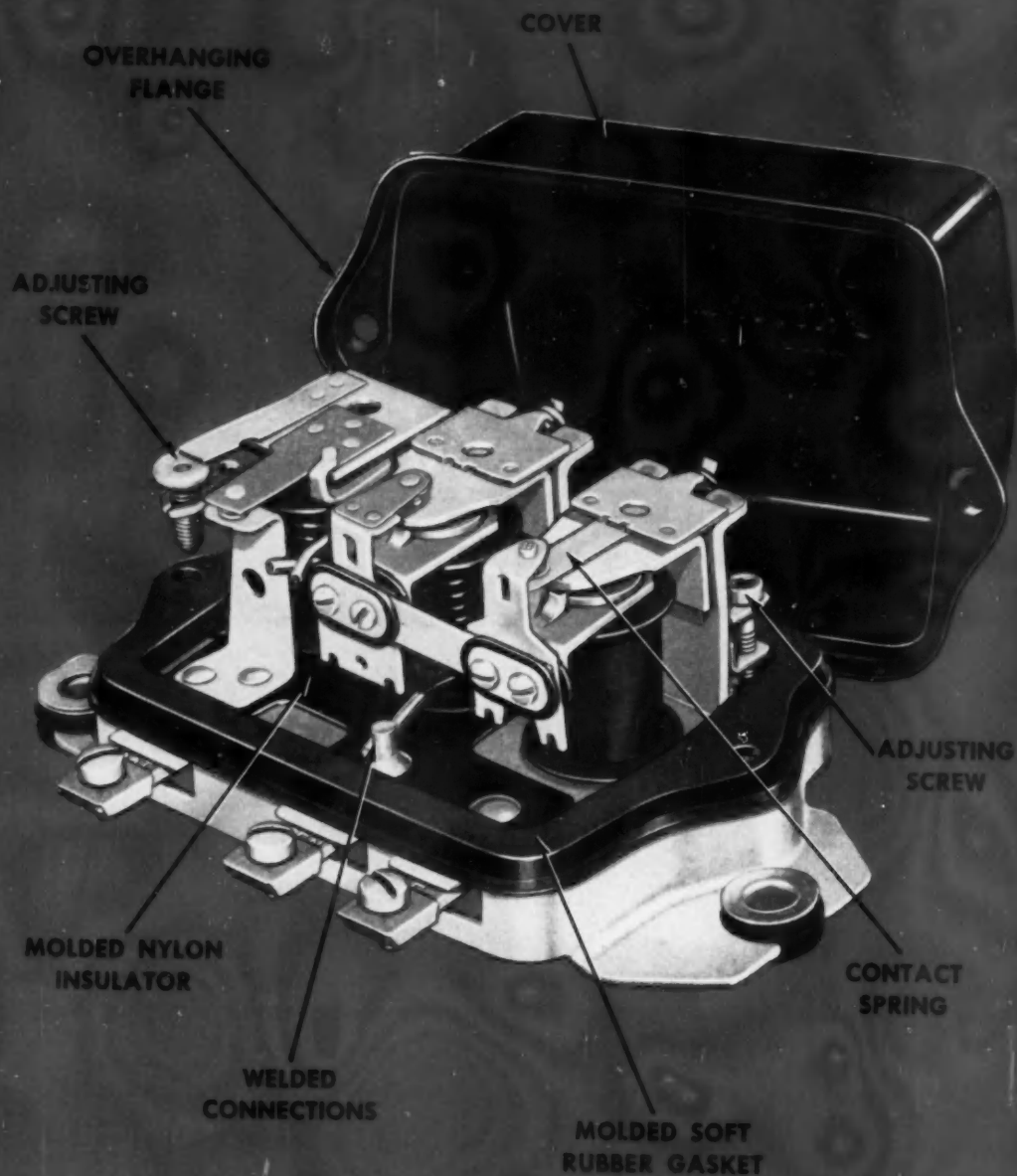
Vital Parts for Automotive Progress



Moraine Products

Division of General Motors, Dayton, Ohio

PROGRESSIVE ENGINEERING MAKES THE DIFFERENCE



DELCO-REMY WATERPROOF

REGULATORS NOW AVAILABLE

FOR ALL POPULAR AMERICAN CARS

Better electrical performance and greater dependability in any weather are important user benefits found in Delco-Remy's waterproof standard generator regulators, now available for general replacement use.

And here are the features that make them the *right* regulators for all popular American cars and trucks.

- ① New overhanging one-piece formed steel cover and mating base shed road splash . . . convenient attaching screws are *outside* the enclosed area. Molded soft rubber gasket seals out harmful oil and water vapors.
- ② Integral sleeves of molded nylon insulator form permanent seal around rivets—assure watertight base.
- ③ New, longer, more flexible armature contact spring on voltage regulator unit assures more positive closing of contact points for smoother operation.
- ④ Welded electrical connections and highest quality tungsten and non-tarnishing precious metal contact points assure minimum resistance, maximum durability.
- ⑤ Special fine thread screw-type controls allow easy, highly accurate adjustment of all three units.

Always replace with Delco-Remy waterproof regulators. Built to highest quality standards by the world's largest original equipment manufacturer, these improved regulators are available from your car or truck dealer or the United Motors System.

DELCO-REMY • DIVISION OF GENERAL MOTORS • ANDERSON, INDIANA



GENERAL MOTORS LEADS THE WAY—STARTING WITH

Delco-Remy

ELECTRICAL SYSTEMS

Laugh it off

Terminal Manager: "I've been thinking things over, Barton, and I've decided to give you the opportunity to take a better paying position."

Hi-Lift Operator: "In what capacity, sir?"

Terminal Manager: "That's for you to decide, Barton. You have the whole town to choose from. You're fired."

CCJ

TRAFFIC COP: "WELL FELLOW, YOUR RIG GOT BUNGED UP PRETTY BAD, DIDN'T IT?"

CITY DELIVERY DRIVER: "YEAH, IT'S A WRECK, AIN'T IT?"

TRAFFIC COP: "WELL, IT'S GOOD ENOUGH FOR YOU. YOU SAW THIS LADY DRIVING TOWARD YOU. WHY DIDN'T YOU GIVE HER HALF THE ROAD?"

CITY DRIVER: "I COULDN'T TELL WHICH HALF SHE WANTED."

CCJ

"Mama, am I a vampire?"
"Shut up and drink your soup before it clots."

CCJ

The daughter of the truck terminal operator had been sent off to a fashionable coeducational institution of higher learning. Shortly thereafter she wrote thusly to her mother: "Goody, goody, mother, I've made the Pep Squad. Please send \$5 for a pair of pep pants."

"Dear Matilda, I herewith enclose \$10.00. Please send a pair of pep pants for your Dad."

CCJ

FREIGHT CHECKER: "DID YOU SAY YOUR WIFE WAS TIRED AFTER THE SAFE DRIVING BANQUET LAST NIGHT?"

ROAD DRIVER: "YES, SHE WAS EXTREMELY TIRED. SHE COULD HARDLY KEEP HER MOUTH OPEN."

Truck Driver: "Say, kiddo, what kind of pie is this—apple or peach?"

Diner Waitress: "What's it taste like, Mac?"

Truck Driver: "Glue!"

Diner Waitress: "Well, then, It's peach. The apple tastes like putty."

CCJ

City Delivery Driver: "I guess I should have stayed home today. My wife's in bed sufferin' somethin' terrible."

Dock Foreman: "That's too bad. I'm very sorry to hear that she's ailing. Is it catching?"

City Delivery Driver: "Yes, I'm sure it must be."

Dock Foreman: "Where on earth did she catch it?"

City Delivery Driver: "In the wringer!"

"Cici Jay"



"It's a lovely day for 18 holes of working over the files."

Safety Sadie: "I'll bet that man was embarrassed when you caught him looking through the transom to watch you undress."

Catty Cora: "Gosh, yes. I thought he'd never get over it."

CCJ

The two truck mechanics tipsily weaved and staggered their way to their car, after a wild tour of the town's watering spots. Careening from one side of the street to the other while attempting to drive home, their car jumped the curb and crashed into a woman's dress shop. The display windows were broken and the dummies were scattered in every direction. One of the dummies came to rest out on the sidewalk and lay there with a completely natural, life-like look.

One of the spifflicated truck mechanics looked at the other, pointed to the dummy on the sidewalk and said, "It'sh a woman driver. They'll do it every time."

CCJ

Diesel Truck Driver: "Looka here, gal, they's something wrong with my steak. It tastes terrible."

Diner Waitress: "Keep your shirt on, bigmouth, and eat it. The chef did burn it a little, but he quickly rubbed some unguentine on it. It's all right."

CCJ

SWEET YOUNG THING: "GEE WHIL- LIKERS, IT'S NEARLY MIDNIGHT. YOU BETTER GET GOING."

AUTOMOTIVE PARTS CLERK: "OKAY, BABY. TURN OUT THE LIGHT."

CCJ

Leadfoot Louie, the trucking industry's gift to the ladies, says: "Most of today's women are happy if they just have a roof over their head and a husband under their thumb."

Resume Work

There is
NO BETTER BATTERY
for
BUS-TRUCK-DIESEL
SERVICE
than the
GOULD-NATIONAL
SILVER COBALT
SEALED CHARGE
BATTERY

Manufactured By

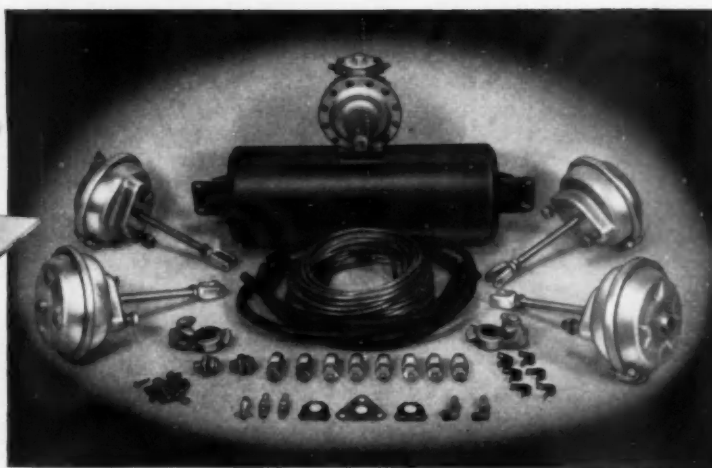
GOULD-NATIONAL
BATTERIES, INC.

ST. PAUL 1, MINN.





WAGNER PROVIDES A COMPLETE TRAILER AIR BRAKE SYSTEM ALL IN ONE PACKAGE FOR FAST, ECONOMICAL FIELD INSTALLATION



Be sure that your trailer brakes are safe. Equip all of your trailers with Wagner Air Brakes for dependable stopping power.

Each Wagner Trailer Air Brake Kit contains a complete trailer brake system all in one package. All components are identical to the Wagner Components used as original equipment by leading truck, trailer, tractor, bus and off-the-road equipment manufacturers. Reliability is assured.

All needed parts, connections, and fittings are included. They fit easily into proper position

with little or no drilling or tapping. Installation time and labor are kept to a minimum. Detailed instructions are easy-to-follow. Kits are available for both single axle and tandem axle trailers.

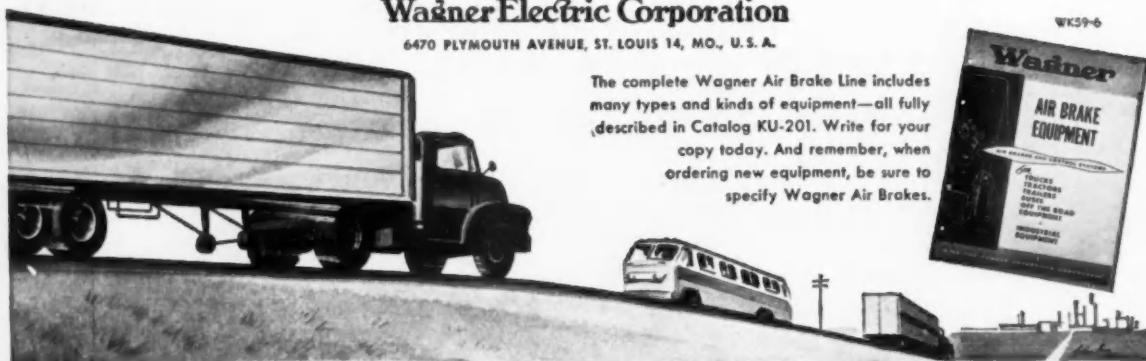
Be sure of your trailer brakes. Changing over to Wagner Air Brakes is a good investment in safety and efficiency. Send for your free copy of Wagner Catalog KU-201 which fully describes the many types and kinds of equipment that make up the *complete* Wagner Air Brake line.

REMEMBER, WHEN ORDERING NEW EQUIPMENT, BE SURE TO SPECIFY WAGNER AIR BRAKES

Wagner Electric Corporation

6470 PLYMOUTH AVENUE, ST. LOUIS 14, MO., U.S.A.

The complete Wagner Air Brake Line includes many types and kinds of equipment—all fully described in Catalog KU-201. Write for your copy today. And remember, when ordering new equipment, be sure to specify Wagner Air Brakes.



LOCKHEED BRAKE PARTS, FLUID, EXCHANGE SHOES and LINING • AIR HORNS • AIR BRAKES • TACHOGRAPHS • ELECTRIC MOTORS • TRANSFORMERS • INDUSTRIAL BRAKES

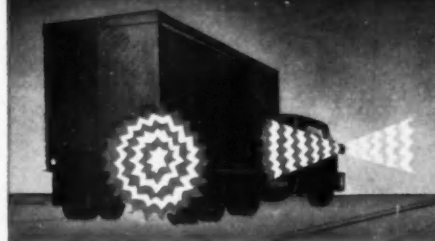
NOW

Push Button Control with . . .

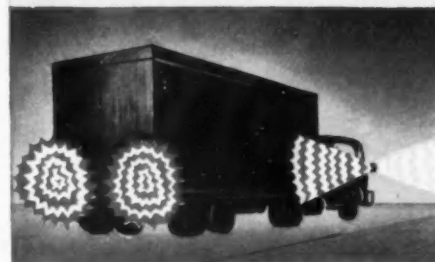


K-D's new and different PUSH BUTTON SWITCH*

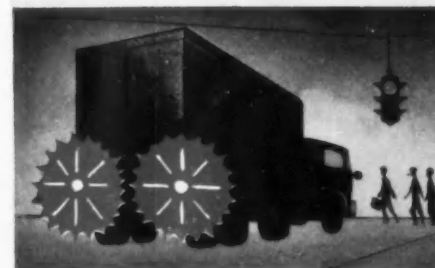
for Turn Signals and 4-Way Flashing



TURN SIGNAL Push one button . . . front and rear signals flash. Fast, sure warning that vehicle is turning or passing.



FOUR WAY FLASHING Until driver can spot flares, he simply pushes both buttons. *All four signals flash* warning that unit is stalled and in trouble!



STOP AND REAR LITES Lamps in K-D's rear Class A Turn Signals become stop lites when brakes are applied . . . tail lites at night.

Revolutionary . . . unique . . . this is the Turn Signal Control you have always wanted. As simple and wear-proof as your electric light switch. Push "L" button and left lights are on. Push "R" button and right lights are on. Push both buttons and *all four signals flash roadside distress!* Top "C" button cancels.

No wonder the biggest buyers are switching to K-D's *Push Button Switch* on sight! The most revolutionary safety control . . . as you'd expect . . . by K-D's pioneering engineers.

TROUBLE-FREE K-D's *Push Button Switch* has only a few working parts. There's nothing to wear out. So, we're glad to give you a life-time guaranty against trouble.

EQUIP FOR SAFETY Before an accident to a truck delays your delivery schedule, put a positive-action K-D *Push Button Switch* on each of your units. Ask your jobber salesman tomorrow for enough Push Button Switches and K-D Turn Signals to equip your whole operation. It will be your biggest step toward maximum safety in 1959!

*Patent Applied For

K-D LAMP COMPANY

1910 ELM STREET • CINCINNATI 10, OHIO

Warehouses: Atlanta • Boston • Charlotte
Chicago • Dallas • Kansas City • Los Angeles
Memphis • Minneapolis • New York • Philadelphia
San Francisco • Seattle

The Complete Line Turn Signals, Truck Mirrors, Stop and Rear Lites, Reflectors, Clearance Market Lites are representative of K-D's complete single-source-service of Automotive Saftee Products.



Big-truck power

A little more than a year ago, this radically different engine was the big news in the trucking industry . . . and since then it has proved its performance qualities on some of the nation's toughest hauling jobs. Big-truck operators everywhere—like the North Dakota hauler shown below—are tightening up their operations with the high power, load-pulling torque and sure-saving ability of Chevrolet's tough Workmaster V8.

ADVANTAGES PROVED IN TOUGH SERVICE

On job after job, the country over, Chevrolet's big 230-h.p. Workmaster V8 has shown why it's a natural for any tough task you've got. Big-truck operators everywhere are taking to its smooth pulling power, its solid dependability, its knack for cutting costs—and you will too!

The Workmaster's ability to conserve fuel while achieving extra power output and durability stems from the special design of the cylinder block and combustion chambers. Combustion chambers are wedge-shaped, fully machined, and located in the cylinder block rather than in the cylinder head. The cylinder block is machined at a 16-degree slant, and *peaked pistons* replace the usual flat-head type.



These components form a special kind of combustion chamber, one which gets maximum combustion turbulence from the fuel-air mixture, maximum power from each drop of fuel used, as well as equalized work loads on each piston for smooth performance and less wear.

That's Wedge-Head design—a Chevrolet Workmaster V8 advantage that started winning boosters the day it was introduced and hasn't stopped yet! It's a design that brings you *many* benefits. Spark plugs positioned for short flame travel, good combustion and high efficiency. Non-shrouded valve openings for improved engine breathing. Stellite-faced exhaust valves that last longer. Replaceable exhaust valve seat inserts that add to durability. Readily accessible components that make for easy servicing.

There's no doubt about it; *your* tough job has met its match—a Series 90 or 100 Chevy equipped with 348-cubic-inch Workmaster V8! The man to see is your Chevrolet dealer. . . . Chevrolet Division of General Motors, Detroit 2, Michigan.

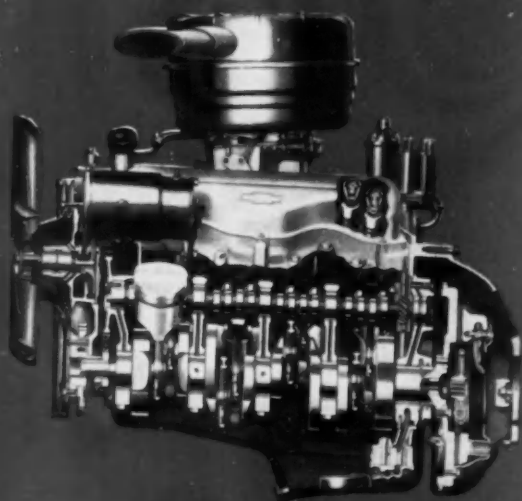


Chevrolet Workmaster V8 beats tough north country grind; goes 104,000 miles before heads or pan are removed.

104,000 miles before even a valve job was needed! William Brosius, Grand Forks, N.D., knows that Chevy's big truck V8's are really tough. He works his Chevrolet Series 100 models hard all year round. The heavyweight shown here covered over 120,000 miles in less than a year. Summers, the big 348-cu.-in. Workmaster V8's pull huge loads of sand and gravel; the rest of the year they pull tandem trailers with full capacity payloads. They keep on going and saving!

No job's too tough for a

story of the year!



Chevy Heavy-Duty Workmaster V8



Tough-built, long-lasting features include:

Hardened forged-steel crankshaft.

It's extra strong and precision balanced for long bearing life. Main and connecting rod journals are induction-hardened to last longer.

Moraine 400 bearings.

They stand up to the toughest service, thanks to premium bearing alloys.

Rotacoil exhaust valve rotators.

Increase valve life by as much as 300% with positive and controlled exhaust valve rotation.

Stellite-faced, high alloy exhaust valves.

Stellite faces reduce wear. Aluminized head retards build-up of combustion deposits. Longer engine life is assured!

Positive governor.

It increases engine life by allowing maximum engine power under full load conditions without excessive engine speed.

Heavy-duty pistons with steel piston-ring insert.

A ring of steel at the top piston ring groove reduces groove wear and maintenance expense.

Advanced roller-type timing chain.

Sturdy construction minimizes wear and stretching. Another reason why the Workmaster stays on any job!

Positive engine ventilation.

Constant air flow through the crankcase protects against acid and sludge forming vapors.

Full-flow oil filter.

Protects the engine from abrasive particles by cleaning all oil. Efficient replaceable element.

Oil-bath air cleaner.

Does a good job of filtering intake air. Keeps engine free of abrasive wear-producing dust.

Chevrolet Truck!

CHEVROLET

January 1959 New Truck Registrations

STATE	Brock-way	Chevrolet	Diamond T	Dodge	Ford	G.M.C.	International	Mack	Studebaker	White	Willys Jeep	Willys Truck	All Others	Total
Alabama		379	4	75	233	101	51	36	1	13	5	5	59	962
Alaska		16		2	16	11	6		2	1			8	62
Arizona		267		41	166	65	49	1	5	1	4	16	28	641
Arkansas		596	3	49	372	89	79	3	9	9	5	10	9	1,203
California		2,765	11	341	2,411	426	326	13	42	45	38	70	535	7,023
Colorado		380	2	52	264	114	71	1	14	1	27	39	24	989
Connecticut	5	170		30	87	35	54	11	2	20	15	30	41	500
Delaware	1	95	1	16	50	15	21	12	1	5	3	4	6	230
District of Columbia		44		10	47	5	5		6				12	128
Florida		685	19	64	495	154	125	35	6	50	23	94	176	1,886
Georgia		524	1	53	362	115	84	69	8	20		2	8	1,313
Idaho		179		35	160	55	55	3	6		3	23	18	537
Illinois		1,124	32	157	828	202	415	56	18	67	28	50	121	3,096
Indiana		697	13	110	581	155	210	48	60	33	6	18	36	1,967
Iowa		536	23	89	391	80	144	7	12	6	7	14	29	1,338
Kansas		448	4	57	390	96	120	5	6	14	4	16	26	1,189
Kentucky		402	1	35	241	77	57	11	6	8	13	12	28	891
Louisiana		769	3	45	441	138	77	13	9	11	7	12	60	1,585
Maine	2	113	2	20	70	26	39	4	3	6	14	28	10	337
Maryland	4	258		83	193	63	58	22	2	9	8	16	53	740
Massachusetts	3	110	1	22	52	34	27	6	1	11	4	21	23	315
Michigan		465	5	83	372	124	54	7	6	15	5	33	50	1,219
Minnesota		232		37	196	47	47	4	7	3		7	22	597
Mississippi		406	1	27	256	82	81	4	7	2	3	2	36	807
Missouri		1,072	9	114	779	237	228	26	12	30	1	11	53	2,572
Montana		171		50	139	45	73	1	7	2	11	39	12	550
Nebraska		464	17	68	335	99	102	1	5	8	14	23	56	1,192
Nevada		43		5	22	10	9		6		4	3	23	125
New Hampshire	1	39		4	35	8	10	34		2	7	12	20	172
New Jersey	28	405	6	94	347	131	114	77	3	53	26	41	122	1,449
New Mexico		295	2	45	181	114	45	6	8	5	10	19	16	746
New York	23	777	11	188	548	196	374	88	10	84	67	209	356	2,949
North Carolina		752		99	639	246	137	87	18	38	8	22	58	2,104
North Dakota		188		36	151	39	75		3	1	6	8	6	493
Ohio	2	775	19	147	667	171	137	60	19	76	47	65	164	2,369
Oklahoma		567	1	34	430	91	89	4	4	7	5	7	15	1,274
Oregon		344		41	218	69	68	8	14	11		46	55	674
Pennsylvania	12	724	17	226	556	169	260	106	22	59	76	146	117	2,482
Rhode Island		106		3	70	8	27	3	3		1	6	26	261
South Carolina		331	1	46	240	66	54	22	3	6	3	4	43	821
South Dakota		281	1	38	189	59	88		7		10	14	9	696
Tennessee		450	3	142	371	149	73	30	3	10	5	4	48	1,288
Texas		2,629	5	240	1,610	335	290	24	21	34	16	31	72	5,267
Utah		142	1	29	81	46	43	4	3	5	1	4	8	367
Vermont	2	46		10	23	5	12	1			3	12	11	132
Virginia		433		91	317	93	88	17	8	18	12	43	54	1,174
Washington		290	1	49	257	121	56	3	9	2	12	34	99	935
West Virginia		164		35	135	68	28	6	12	8	20	43	18	537
Wisconsin		320	4	47	241	78	125	12	6	23	11	13	39	919
Wyoming		126	1	36	93	51	31	4	2		8	20	11	383
Total January, 1959	83	23,565	227	3,418	17,373	5,015	4,853	991	445	843	628	1,371	2,886	61,796
Total January, 1958	62	17,656	193	3,039	14,827	3,920	7,525	845	390	810	419	976	1,931	52,402

Based on data from R. L. Polk & Co.

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ICC Blames Fleet and Driver for Fatal Accident at Bedford, Pa.

BOTH THE motor carrier and the driver of a tractor-trailer were blamed for the accident in which a pedestrian was killed when the unattended vehicle rolled backward down an incline at Bedford, Pa., on Dec. 27, 1957. The accident occurred at a restaurant parking lot on the Pennsylvania turnpike near the Bedford interchange.

The ICC accident investigation report by Commissioner Laurence K. Walrath stated that Middle Atlantic

Transportation Co., New Britain, Conn., failed to comply with the Commission's regulations, which require an adequate and properly functioning mechanical parking brake.

Also cited as a cause of the accident was the driver's use of the tractor protection valve to park with. The driver, Frederick A. Thompson, Lebanon, Pa., stated that this was the only means of holding the vehicle, since the parking brake, even when it was set, would not hold the load.

While Thompson was in the restaurant, the air supply, with the tractor protection valve in emergency position, became depleted. The rig, which was parked in the passenger car section of the lot, coasted backward and ran over a pedestrian. The victim died six hours later.

The parking brake was found to be defective, as the driver stated, by a test directed by a Pennsylvania state policeman and by the ICC investigation. It was also established that the truck lines instructions to its drivers did not contain specific advice concerning the correct method of securing unattended vehicles against movement. Furthermore, the Commission's safety regulations state that no vehicle shall be driven until the driver satisfies himself that the parking brake is in good working order.

CONTROL!



and in trucks...

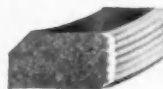
OIL CONTROL!

**with Sealed Power KromeX Piston Ring
Sets with Stainless Steel Oil Rings**

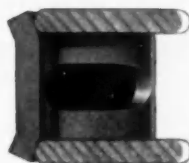
Stainless steel oil rings are the reasons America's largest engine builders are using Sealed Power rings as original equipment.

New design... new material... fully tested! These rings come in fast, control oil even under high vacuum conditions or in tapered and out-of-round bores.

JUST ONE OF THE REASONS WHY



They seat instantly. Here you see cross-section views of both the top compression ring and the stainless steel oil ring. Both the face of the compression ring and the side rails of the oil ring are chrome-plated for long life.



The chrome-facing on the top compression ring is factory-lapped for quick seating. This lapping process is the equivalent of several hundreds of miles of actual engine operation.

The steel side rails of the oil ring are heavily chromed to reduce friction and impart long, efficient life. A special factory applied finish assures immediate seating. The chrome facing has microscopic pockets which hold oil and forms a perfect seal with the bore.


SEALED POWER CORPORATION • MUSKEGON, MICHIGAN

Sealed Power KromeX Ring Sets

BEST FOR RE-RING!

BEST FOR RE-BORE!





Some of the hundreds of bus and truck parts that were checked in the 2,000,000-mile road-evaluation of Molyulfide chassis grease. This research furnished proof that Molyulfide additive makes a grease that's superior to conventional premium greases.

HERE'S NEW PROOF THAT ***Molyulfide*** T.M. GREASE REDUCES WEAR

2,000,000-mile road test points way to **more revenue miles** for fleet operators

There have been many enthusiastic reactions to Molyulfide chassis grease by fleet operators—and now there's research proof that their enthusiasm was well-placed!

A 2,000,000-mile road test has just been completed by one of the leading automotive research organizations. In this test, Molyulfide grease was compared with a conventional heavy-duty grease. The bulk of the mileage was covered by city buses and tractor-trailer rigs in regular commercial service — operating in such

conditions of terrain and weather as: deserts, mountains and prairies . . . city traffic and cross-country high-balling . . . summer and winter . . . snow, ice and rain.

And the results . . .

This grueling test proved that Molyulfide grease means less parts wear . . . fewer breakdowns — more time on the road . . . **more revenue miles!** Some of the important findings are shown on the opposite page. Read them. They point the way to *less "red-line time" for your fleet!*

RESEARCH REPORT PROVES...

Molysulfide grease reduces parts wear where lubricant film is broken... where shock loading or reciprocating motion wipes off normal grease!

The improvement ranged from 18% to over 88% on truck and bus components! Some typical results are shown in the table below. For specific infor-

mation on parts of particular interest to you, write Climax.

REDUCTION IN WEAR IN TYPICAL TRUCK AND BUS COMPONENTS — MOLYSULFIDE GREASE vs. CONVENTIONAL PREMIUM GREASE

Component	Average improvement — or % less wear — with Molysulfide grease
City Bus steering ball	88%
Kenworth truck steering ball	18%
City Bus steering universal joint	39%
Kenworth truck king pins	57%
International truck king pins	42%
Kenworth truck front drive line universal joint	59%
International truck drive line universal joint	32%
Kenworth truck front spring pin	41%
Kenworth truck rear spring pin	40%
International truck front spring pin	87%
International truck rear spring pin	33%

NOTE: Figures shown here are averages for several parts that make up the entire component. Also, they are average results over all such components tested. For example, the first item here, City Bus steering ball, contains two parts, the arm and the retainers, and the average wear for a total of ten parts was computed. Many other components not shown here were also tested in this program.

ORDER MOLYSULFIDE GREASE BY BRAND FROM THESE MAJOR OIL COMPANIES



CITIES SERVICE

Cities Service Oil Company
Arkansas Fuel Oil Corp.
Orange State Oil Co.
Trojan HM Grease



Standard Oil Company
(Indiana)
STANOLUBE HD Moly



Gulf Oil Corporation
Gulflax Moly



Sinclair Refining Company
Litholine® Moly Grease



Socony Mobil Oil Company, Inc.
General Petroleum Corp.
Magnolia Petroleum Co.
Mobilgrease Special (with Moly)



Standard Oil Company
(Kentucky)
Standard Moly MP Lubricant Mobilgrease Special (with Moly)



Phillips Petroleum Company
Philube A Special



Sun Oil Company
Sun Multi-Duty Grease (Moly)
Sun Heavy-Duty Chassis Lubricant (Moly)

CANADA



The British American Oil Company Limited
B-A Barimal Heavy Grease



Imperial Oil Limited
Esso MP Grease (Moly)

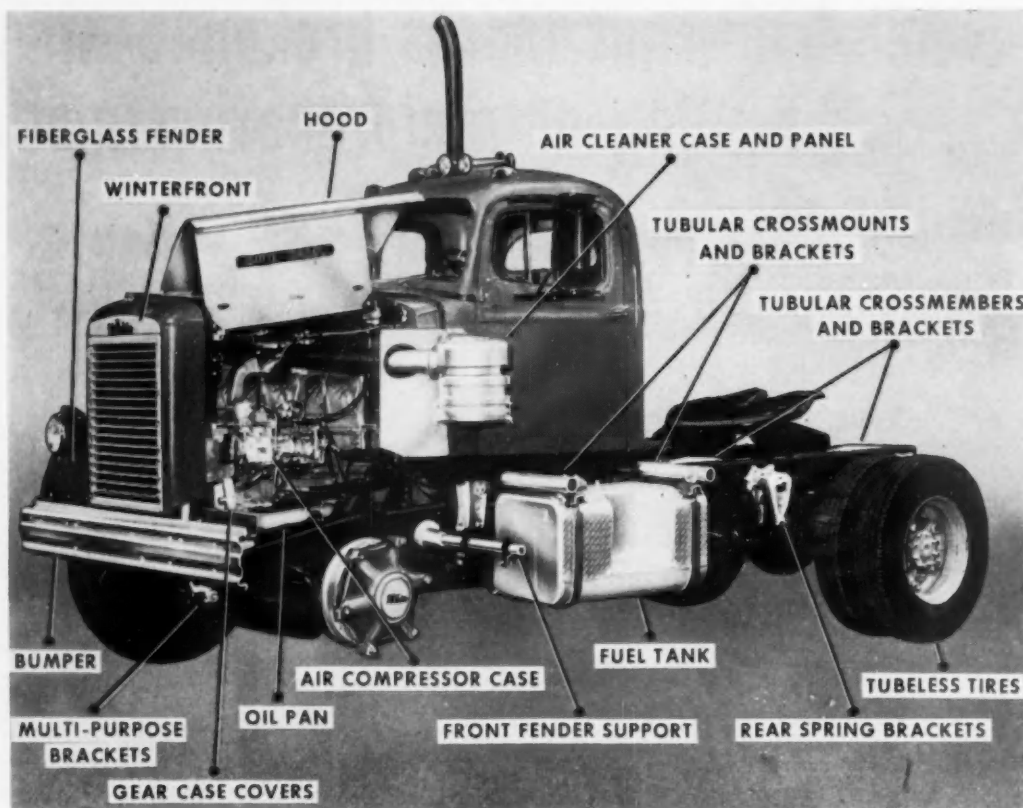


Texaco Canada Limited
Molytex

CLIMAX MOLYBDENUM COMPANY

A Division of American Metal Climax, Inc.
500 Fifth Avenue, New York 36, N. Y.

White Trims Tractor Weight a Ton



View above doesn't tell the whole story but does show where aluminum cuts weight in 4400TDL chassis

Using aluminum components plus a few other weight savers, White cuts its 4400 diesel tractor to 8950 lb . . . 2050 lb less than standard. Other new "Ultra" lightweights include a 5000TDL at 9320 lb and 9000TDL at 8995 lb

V IF YOU substitute lightweight components wherever possible, how much weight can you trim off a tractor?

White tried it, came up with the following weights for its new "Ultra" lightweight TDL models. . . .

- On the 4400, the TDL version can be had as light as 8950 lb (less fuel and fifth wheel) as compared to 11,000 for the standard TD model—2050 lb less.

- On the new 50-in. 5000 (Dec. '58, page 112), already a lightweight model in its 10,570-lb standard TD version, the new TDL tips the scale at 9320 lb—1250 lb less.

- On the 9000, the TD standard model goes 10,800

lb but comes out 1805 lb less in the new TDL model at 8995 lb.

Most of the weight saving comes from extensive use of aluminum parts . . . front bumper brackets, front cross member, engine support brackets, fender supports, cab and fuel tank cross tube assemblies, cab support brackets, rear spring brackets, rear cross tube assemblies, flywheel housing, gear case covers, oil pan, intake manifold, fuel pump case, transmission main case, brake spiders, air tank and brackets, air compressor case, quick release valves, glad hands, bumper, air horn, winterfront, steering gear housing,

(TURN TO PAGE 345, PLEASE)

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PF

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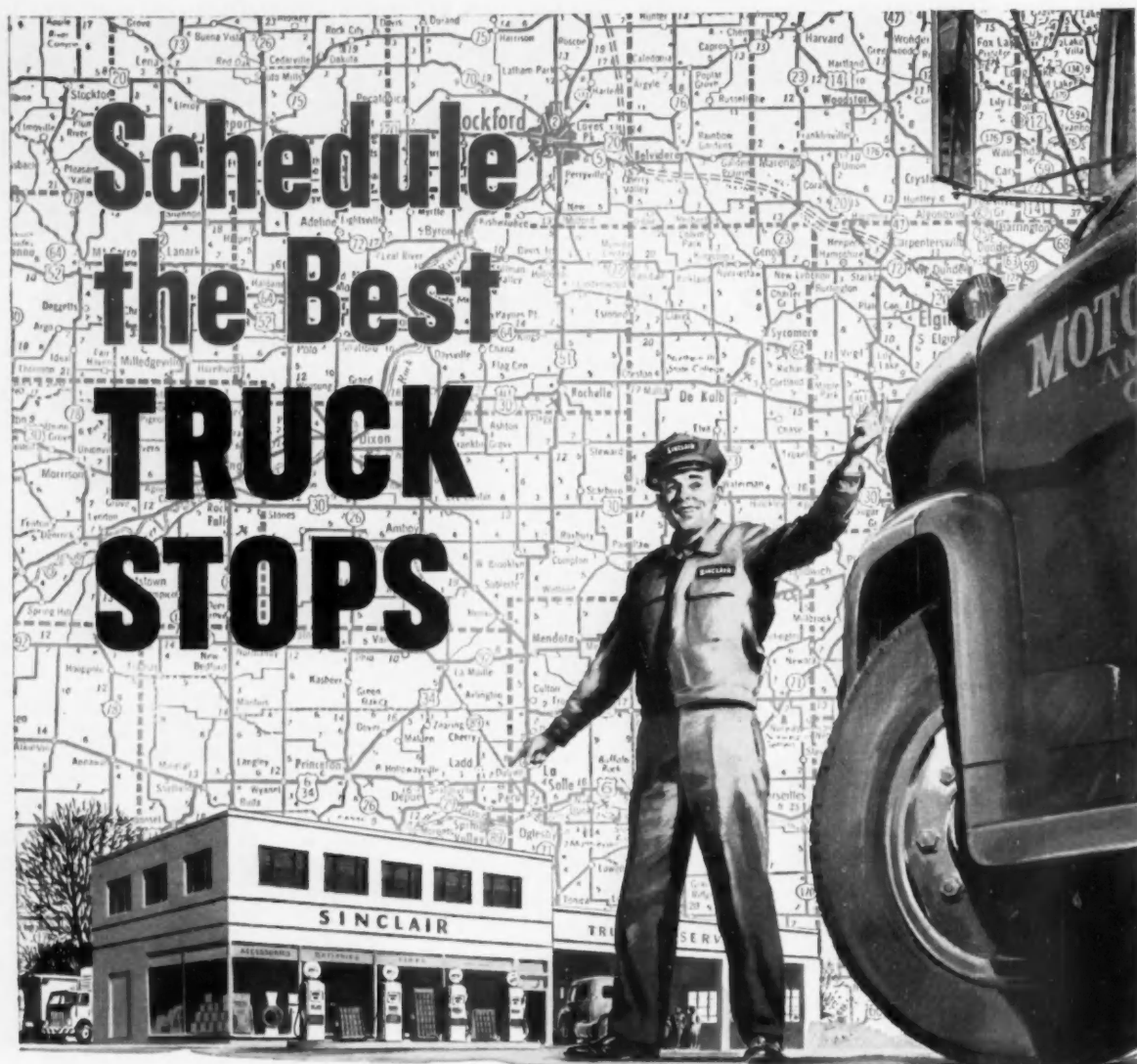
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INDIANA

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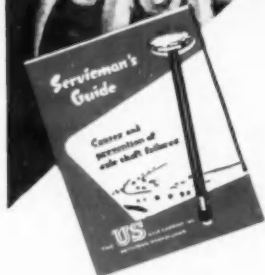
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Chris Nielsen, transportation superintendent, Arden Farms Co., Los Angeles, California

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UNION OIL COMPANY
OF CALIFORNIA

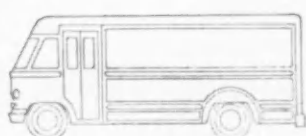
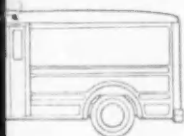


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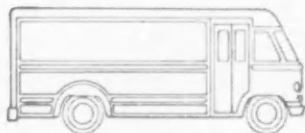
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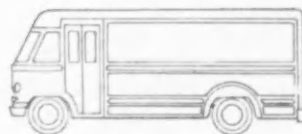
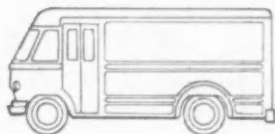
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still in use today!...



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DIVCO TRUCK DIVISION

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Zenith Carburetor Division

DETROIT 14, MICHIGAN





W. L. Mead, President W. L. Mead, Inc., Norwalk, Ohio, "gauges" the tread depth of a Cooper Road-Master Extra Mile tire as Rollie Miller (right) looks on.

Cooper Extra-Mile tires save \$13,857

W. L. Mead trucks regularly operate on a 1500-mile round trip run between Norwalk, Ohio and Boston, Mass. Turnpike speeds, steep hills, sharp and winding curves, highly abrasive highways and maximum payloads make this operation one of the country's toughest on tires. This operator has used Cooper truck tires for over 25 years. Yet, additional savings of nearly \$14,000 annually have been recorded since the new Cooper Road-Master Extra Mile was first introduced.

Million Dollar Marvel

A new electronic cord processing mill is one reason why Cooper tires cut costs and increase profits on any trucking operation. Aply named the Million Dollar Marvel because of its tremendous size

and accuracy, Cooper's new electronic mill produces a more compact, cooler-running "Hi-T" (high tension) tire cord that is actually stronger than steel cable, pound for pound.

Freedom From Tire Trouble

The combination of new Cooper "Hi-T" cord and Cooper Shock-Guard construction puts extra cord strength and extra layer strength directly under the tread, at the shoulders, far down the sides. This is why Cooper Road-Master Extra Mile tires are practically damage proof, deliver up to 45% more original mileage, plus as many as 4 and 5 bonus recaps.

You Save Money

New Cooper Road-Master Extra Mile tires cost less to buy and you have a

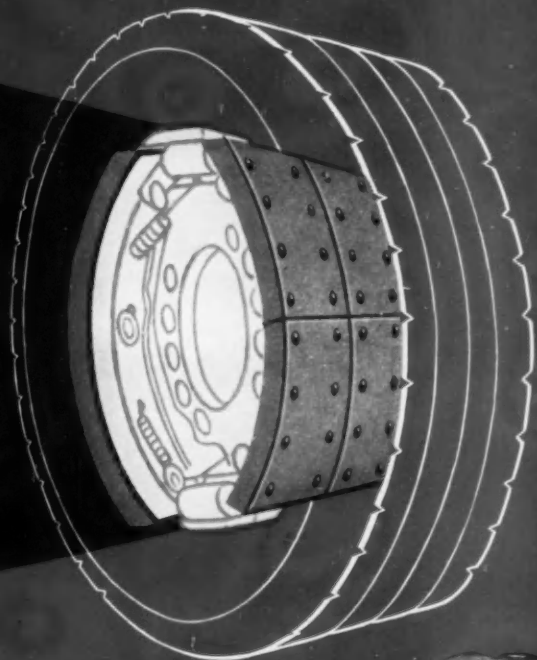
choice of "Hi-T" Nylon or Tyrex cord types. Freedom from the common causes of tire failure and lower operating costs are as near as your Cooper truck tire dealer. Call him today. Or write Dept. 118 direct for prices and information. Cooper Tire & Rubber Company, Findlay, Ohio.



W. L. Mead tractor-trailer unit starts its 1500 mile shuttle run. The entire fleet of 150 units is equipped 100% with Cooper truck tires.

Cooper Tires
... your profit line for '59

**Brake drums
are costly.
Don't let inferior
brake blocks
shorten their life!**



Getting your money's worth out of the parts you buy is essential to getting a good profit out of your business. Brake drums are expensive . . . far more expensive than brake blocks, on which drum durability is so dependent. Inferior brake blocks cause brake fade . . . they heat-check and score drums. Top-quality blocks like Raybestos provide safe slowdowns and stops and they reduce brake costs substantially.

Regardless of your operation—local stop-and-go, intercity service, hauling over mountains—Raybestos can give you brake blocks custom tailored in the precise combinations for your needs, and thoroughly proving ground tested . . . brake blocks that not only last longer and resist fade, but assure increased drum life too.

And, of course, your fleet efficiency will also be improved by these other top quality Raybestos products . . .



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Takes a beating without chipping...

No wonder Du Pont DULUX® Enamel is
specified for leading fleets



PAINT PILE DRIVER. A weighted hammer comes crashing down on a panel painted with "Dulux" Enamel. The metal is repeatedly dented, but "Dulux" does not chip or crack, proving its outstanding durability.

To build a reputation for durability on trucks and buses, a finish must graduate at the head of its class from the school of hard knocks. And look at the hard knocks "Dulux" Enamel takes for a final exam. That's to make *sure* it stands up to slam-bang loading and flying gravel.

Other equally punishing tests insure re-

sistance to harsh sunlight and dew, to salt air, to flexing and to ice and heat. Still others measure fast drying and other features that make "Dulux" popular in the paint shop.

TRUE ECONOMY. When you put Du Pont "Dulux" on your fleet, you take advantage of the continuing experience of



PABST BEER TRUCKS use "Dulux" colors to say "refreshment" to everybody along the way. Chip-resistant "Dulux" stands up to thousands of loadings and unloadings, too.



FORT WORTH TRANSIT COMPANY buses are protected by "Dulux" from the searing Texas sun. Finishes stay bright and beautiful, are easy to maintain.

the world's greatest paint laboratory. Your paint shop will find "Dulux" easy-working, reliable, economical. It will stay out of the paint shop longer, snap back bright and beautiful at every washdown. So remember, specify Du Pont "Dulux" Enamel.

E. I. du Pont de Nemours & Co. (Inc.),
Finishes Div., Wilmington 98, Del.

Du Pont "Dulux" Enamel



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... THROUGH CHEMISTRY

Special for Fleets!

New Multi-Grade Crankcase Lubricant

*It's 3 Oils
in One*

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20W-40

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THIS NEW, PREMIUM QUALITY, heavy duty oil is specifically formulated for commercial fleet operation. It is the one oil for all seasons, where an SAE 20W, 30 or 40 oil is recommended . . . three grades of oil in one. It is now available after millions of miles in fleet service.

Rotella® T Oil 20W-40 is a multi-grade lubricant with all of the anti-wear properties that make Rotella Oils famous. It has the same alkaline additives that reduce engine wear . . . prevent rust, and corrosion too! It cuts maintenance and repair costs.

Rotella T Oil 20W-40 offers excellent detergent-dispersant action . . . keeps harmful engine deposits to a minimum. You get maximum performance and top economy either in continuous heavy-duty operation or stop-and-go service. Write or call for complete information on Rotella T Oil 20W-40:

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it's like a heavy-grade oil! Protects under the highest engine temperatures—holds its body.

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it keeps engines running for hundreds of thousands of miles!

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it flows as freely as a light grade oil—gives easy starts without excessive battery drain.

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Refinery tests prove PLUS 10 reduces
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CHECK YOUR TUNE-UP



MAINTENANCE

TRUCKS

Autocar	74
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CHECK YOUR TUNE-UP

AUTOCAR

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
White 490A	531	6	4¾ x 5
Cummins JT-6	401	6	4⅞ x 5
Cummins NH-180, NH-195	672	6	4⅞ x 6
Cummins HRF, NH-220, NT, NTO, NRT, NRTO	743	6	5⅞ x 6

Oil Pressure

(At governed speed)

White 490A	40-60 psi
Cummins JT-6	30-60 psi
All others	30-50 psi

Compression Pressure

White 490A.....110-120 psi @ cranking speed.

IGNITION

Cam Angle (Dwell)

White 490A	31-37 deg
------------	-----------

Breaker Point Gap

White 490A	.022 in.
------------	----------

Spark Occurs

(Degrees Before Top Center)

White 490A	6 deg
------------	-------

SPARK PLUGS

Make & Type

White 490A	CH D-10
------------	---------

Size

White 490A	18 mm
------------	-------

Gap

White 490A	.025 in.
------------	----------

Torque

White 490A	25 lb-ft
------------	----------

Cum JT-6...

11/16 in.: 280-300 lb-ft

¾ in.: 380-400 lb-ft

All others 430-450 lb-ft

VALVE SPRINGS

Free Length

White 490A	2.531 in.
Cummins JT-6	2.539 in.
Cummins HRF	3.484 in.
All other	3.313 in.

Pressure

White 490A.....177-187 lb compressed to 1.612 in.

Cum JT-6...122 lb compressed to 1.673 in.

Cum HRF...179½-198½ lb compressed to 2.1875 in.

All others.....104-114 lb compressed to 1.8437 in.

VALVES

Operating Tappet Clearance

White 490A zero

Cummins engines (with oil temperature @ 140 deg)

JT-6Inlet: .015 in.

Exhaust: .025 in.

HRFInlet: .014 in.

Exhaust: .022 in.

All othersInlet: .014 in.

Exhaust: .027 in.

Seat Angle

White 490AInlet: 45 deg

Exhaust: 45 deg

CumminsInlet: 30 deg

Exhaust: 30 deg

TORQUE

Cylinder Head Bolt

White 490A 105-110 lb-ft



"Are you ours?"

BATTERY

Amp-Hour Capacity

White 490A	120
Cummins JT-6	150
All others	200

Plates Per Cell

White 490A	17
Cummins JT-6	21
All others	29

SAE Group No.

Models with 490A & JT-6	2
All others	4

Terminal Grounded

All models	Pos
------------	-----

FRONT END

Toe-In

All models	0-¼ deg
------------	---------

Camber

All models	1 deg
------------	-------

Caster

Truck Model

C65 series	-¾-+¾ deg
C9564	-1-+1 deg
C6764-OH	-¾-+¾ deg
Other C-series..	-1-+1 deg
DC102, DC103T.	0- 2 deg
DCU75T	-1-+1 deg
DC87D-OH	-1-+1 deg
DC9564	-1-+1 deg

DC9764-OH	— 1-+ 1 deg
DC108D-OH ...	— 1-+ 1 deg
DC10464S-OH ..	— 1-+ 1 deg
DC20864S-OH ..	— 1-+ 1 deg
Other DC-series	— 3/4-+ 3/4 deg

King Pin Slant

Truck Model

C65 series	5 1/2 deg
C6764-OH	5 1/2 deg
DC102, DC102T	5 1/2 deg
DC20364S-OH	0 deg
All others	8 deg

CAPACITIES

Crankcase

White 490A	16 qt
Cummins JT-6	16 qt
All others	28 qt

Transmission

Fuller:

6352, 6453	17 pt
R-46	19 pt
5C72, 5C720	24 pt
R-96, R-960	31 pt
RA-96, RA-960	36 pt
RA-63, RA-630D	30 pt

Rear Axle

TK, G, GH	18 pt
FT	25 pt
134C	26 pt
235C	44 pt

Timken Tandems:

(Capacity of each axle)

SLHD	Front: 32 1/2 pt
	Rear: 32 pt
SQHD	Front: 34 pt
	Rear: 31 pt

SFD, SFDD-4600...

	Front: 28 pt
	Rear: 24 pt

SQD, SQDD, SRD, SRDD: 22	pt
SLD, SLDD, SFD-4742: 25	pt

Two-Speed

Q300	35 pt
R300	40 pt
79746 (Double reduction)	24 pt
Worm Drive	
SQW (each axle)	26 pt
SW-3456	48 pt
SW-456	56 pt
SW-3458A	66 pt

Cooling System

Models with:

White 490A	39 qt
Cummins JT-6	31 qt
Cummins NT	44 qt
All others	42 qt

LUBRICATION

Crankcase

White 490A...Use SAE 30 in Summer, SAE 20 in Winter. All Cummins engines...Above 90 deg use SAE 30; Between 32 and 90 deg use SAE 20; Below 32 deg use SAE 10W.

Transmission

Fuller 6352, 645 and Spicer 4 and 5-speed...Use SAE 50 engine oil all year.

Auxiliaries...Use SAE 50 engine oil all year.

All others...Use SAE 90 straight mineral oil all year.

Rear Axle

SQW...Use SAE 140 straight mineral oil all year.

G, GH, FT, TK...Use SAE 90 Extreme Pressure lubricant all year.

All others...Use SAE 140 Extreme Pressure lubricant all year.



LUCKY MAN

who knows the difference!

...and the finest fittings with cabinets cost you less



IMPERIAL PANORAMIC BRASS FITTING CABINET NO. 440-F. 224 parts. Check stock at a glance. Labels show catalog numbers, size and picture. Dealer's cost...\$24.95.



IMPERIAL VIS-O-RAMA "15" FITTING SERVICE CENTER NO. 415-F. 308 parts. Crystal clear visibility thru slant front drawers. Every compartment labeled. Dealer's cost...\$37.15

*Price sheet of Oct. 7, 1957
***Price sheet of Jan. 15, 1959

**Price sheet of Aug. 15, 1958

IMPERIAL

THE IMPERIAL BRASS MANUFACTURING CO.

Dept. CCJ-47

6300 W. Howard St., Chicago 48, Ill.

In Canada: 18 Hook Ave., Toronto, Ont.



Fontaine

presents

The heart of every Fontaine Fifth Wheel is the patented NO-SLACK lock . . . an exclusive Fontaine feature!



**the NEW
convenient**

JOCKEY MOUNT

**the answer to in-terminal and short-haul
trailer interchange problems**

The new Fontaine Jockey Mount combines the standard and now famous "NO-SLACK" Fifth Wheel with hydraulically operated lifting jacks. With the Jockey Mount, short hauls and in-terminal trailer moves can be easily made without manually cranking the landing gear of the trailers. The lifts and the lock can be readily worked by one man . . . all that is necessary for a move is to back in with the jockey mount and pick up the trailer.

This unit has been extensively tested in Fontaine's special products division, on the road, and in the terminals of leading fleets. Its ease of operation, dependability, and low cost, clearly demonstrate its superiority over other types of yard jockeys.

The time saving Fontaine Jockey Mount comes completely assembled and is available to fit any truck frame. It carries the standard Fontaine warranty.

*For detailed information and prices, write today to Fontaine,
the world's leading producer of fifth wheels.*

Fontaine Truck Equipment Co., Inc.

1232 North 37th Place

Birmingham 1, Alabama



One of the Philgas-powered rigs operated by Petroleum Transport, Inc. Driver, Vern Long, is "gassing-up" before going on a run.



Mr. Clarence Meyer
Superintendent
Petroleum Transport, Inc.
Madison, Wisconsin

"We use Philgas* Power for heavier loads and longer hauls!"

● Petroleum Transport of Madison, Wisconsin, operates statewide as well as interstate into Wisconsin. They use Philgas in five of their tractors. "We use our Philgas-powered units for long hauls on our heaviest loads because of the extra power they deliver," reports Superintendent Clarence Meyer. "We also find that Philgas gives us some fuel savings as well as extras like longer plug and muffler life. Of course, our drivers like this clean-burning fuel for its smooth power and lack of fumes.

"Our maintenance savings with Philgas could be greater," Mr. Meyer goes on to say, "but our engines are not quite big enough for

the heavy loads we haul. They are forced to go at full power almost round the clock. Yet, these Philgas units require no more maintenance—and in some cases less—than other units operating under more favorable conditions. With the right sized engines, we are sure that the overall savings from Philgas . . . the fuel economy, extra power, absence of oil dilution, and lower maintenance . . . would be considerable."

Fleet owners all over the country are discovering that Philgas is the key to more efficient hauling . . . with reduced maintenance and greater fuel economy. For complete details, write or call today.



SALES OFFICES:

AMARILLO, TEX.—First Nat'l Bank Bldg.
ATLANTA, GA.—1428 West Peachtree St.,
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HOUSTON, TEX.—6910 Fannin St.
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KANSAS CITY, MO.—201 E. Armour Blvd.
MINNEAPOLIS, MINN.—215 South 11th St.
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RALEIGH, N. C.—401 Oberlin Road
SALT LAKE CITY, UTAH—68 South Main
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TAMPA, FLA.—3737 Neptune St.
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*Philgas is the Phillips Petroleum Company trademark for its high quality LP-Gas (propane, butane).

PHILLIPS PETROLEUM COMPANY

Sales Department, Bartlesville, Oklahoma



CHECK YOUR TUNE-UP

BROCKWAY

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke(in.)
40B (Con M6330)	330	6	4 x 4 3/8
41BD (Con M6363)	363	6	4 x 4 13/16
42BD (Con B6427)	427	6	4 5/16 x 4 7/8
46BD (Con R6513)	513	6	4 1/2 x 5 3/8
48BD (Con R6572)	572	6	4 3/4 x 5 3/8
46FD (Con R6513)	513	6	4 1/2 x 5 3/8
48FD (Con R6572)	572	6	4 3/4 x 5 3/8

Oil Pressure

All engines...
55-65 psi @ 2000 rpm

Compression Pressure

(At cranking speed)
46BD, 46FD 102-108 psi
48BD, 48FD 108-112 psi
Others 110-115 psi

IGNITION

Breaker Point Gap

All engines022 in.

Cam Angle (Dwell)

All engines 39 deg

Spark Occurs

(Degrees Before Top Center)

40B 9 deg
41BD 4 deg
42BD 2 deg
46BD & FD, 48 BD & FD 5 deg

VALVES

Operating Tappet Clearance

40B Inlet: .020 in.
Exhaust: .022 in.

41BD, 42BD Inlet: .016 in.
Exhaust: .024 in.
Others Inlet: .020 in.
Exhaust: .024 in.

Seat Angle

42BD Inlet: 15 deg
Exhaust: 45 deg
Others Inlet: 30 deg
Exhaust: 45 deg

Face Angle

42BD Inlet: 15 deg
Exhaust: 44 deg
Others Inlet: 30 deg
Exhaust: 44 deg

VALVE SPRINGS

Pressure

(Valve Open)

40B, 41BD...
115-123 lb @ 1.520 in.
42BD...129.7-143.7 lb @ 1.226 in.
46BD & FD, 48 BD & FD...
Inner: 86- 94 lb @ 1.367 in.
Outer: 153-167 lb @ 1.617 in.

TORQUE

Cylinder Head Bolt

40B, 41 & 42BD.. 70- 75 lb-ft
Others 100-110 lb-ft

SPARK PLUGS

Make & Type

40B CH 8 Com
Others CH D-10

Size

All engines 18 mm

Gap

All engines025 in.

BATTERY

Amp-Hour Capacity

46BD & FD 150
48BD & FD (2 batteries)... 120
Other engines 120

Plates Per Cell

46BD & FD 19
48BD & FD (2 batteries)... 17
Other engines 17

Terminal Grounded

All models Pos

Polyethylene Bulk Hauler



Tennessee Eastman Co., Kingsport, Tenn., hauls critically sensitive polyethylene in self-unloading trailers. Shown here is a three hopper-bottom bin model which unloads the bulk plastic into a pneumatic conveyor. Material is blown through flexible lines directly into plant storage facilities. Trailer was designed and built by Dracco Div., Fuller Co., Cleveland, Ohio. Body is made of Alcoa aluminum. Trailer chassis is from Fruehauf.

FRONT END

Toe-In

All models 1/16-1/8 in.

Camber

All models 1 deg

Caster

All models 1/2-1 1/2 deg

King Pin Slant

Truck Model

128WX, 146WX, 148WD	5 1/2 deg
147W, 147WL, 148SLD.	5 1/2 deg
155W	5 1/2 deg
260LD, 260WLD	8 deg
260SQ, 260SF	8 deg
Others	0 deg

CAPACITIES

Crankcase

40B, 41BD	7 qt
42BD	8 qt
46BD & FD, 48BD & FD..	14 qt

Transmission

Truck Model

128WX, 146WX	11 pt
147W, 147WL	11 pt
148-155 series	16 pt
Others	24 pt

Rear Axle

Truck Model

128WX, 153SL, 155W...	20 pt
254W, 256W	20 pt
146 WX, 148WD	31 pt



"Ever try using the writing end of that pen to sign those letters?"

COMMERCIAL CAR JOURNAL, April, 1959

147W, 147WL	31 pt
260WD	32 pt
255W, 258W	35 pt
153SL	37 pt
254W, 256W	39 pt
260WLD	39 pt
148SLD (each axle)....	20 pt
153SQ (each axle).....	23 pt
260SQ (each axle).....	23 pt
260SF (each axle).....	28 pt

Cooling System

Models with...

40B	25 qt
41BD	26 qt
42BD	31-33 qt
46 & 48 BD & FD...	40 qt

LUBRICATION

Crankcase

All engines...Use SAE 30 engine oil all year.

Transmission

T-98...Use SAE 90 straight mineral gear oil all year.

All others...Use straight mineral gear oil. Use SAE 140 in Summer, SAE 90 in Winter.

Rear Axle

All models...Use SAE 90 Extreme Pressure lubricant all year.

AUTOPULSE

THE ORIGINAL ELECTRIC FUEL PUMP



LAUGHS

AT

VAPOR LOCK

and

ALTITUDE

2 models fit all gasoline engines

There is no highway in America that doesn't carry Autopulse-equipped commercial vehicles.

And why not? Over 32 years, Autopulse has proved that it licks vapor lock, and altitude.

Both models—6-volt and 12-volt—have built-in pressure regulation.

Low in price...easy to install...they deliver as long as there's gasoline in the tank.

At AEA Wholesalers everywhere



Electric



AUTOPULSE

Division

WALBRO CORPORATION

Cass City, Michigan

Now there's a "Jimmy" Diesel engine for **PEDDLE and SHUTTLE**



THE GM DIESEL
ALL-PURPOSE
POWER LINE
20 to 1650 H.P.
in only 3 cylinder sizes

NON-TURBOCHARGED RATINGS



NEW

"2-53"
20 to 47 H.P.



"2-71"
33 to 67 H.P.



NEW

"3-53"
38 to 97 H.P.



"3-71"
51 to 118 H.P.



NEW

"4-53"
51 to 130 H.P.



"4-71"
69 to 167 H.P.



NEW

"6V-53"
76 to 195 H.P.



"6-71"
112 to 252 H.P.

SERVICE and this "4-53" is averaging 9.48 M. P. G.

If you use your trucks for peddling locally or shuttling between terminals—or in city pickup and delivery work—you're bound to have a hankering to cut your fuel costs.

Well, brother, here's the answer you've been looking for.

It's a great new "Jimmy" Diesel engine—the "4-53"—and it's racking up performance records that really take the cake.

Item: It's averaging 9.48 miles per gallon for a Midwest trucker who's hauling 12-25,000 pound payloads on 50- to 100-mile runs over hilly terrain.

Item: It burns barely one gallon per hour bucking stop-and-go traffic in city pickup and delivery service for this same Midwest hauler who replaced a gasoline engine in a tractor he had retired from long-haul service.

And fuel economy is only half the story. For the new Series 53 "Jimmy" Diesel engines have every advantage any Diesel has ever had—and then some.

Size? Amazingly compact—fit the same space as gasoline engines of equal ratings.

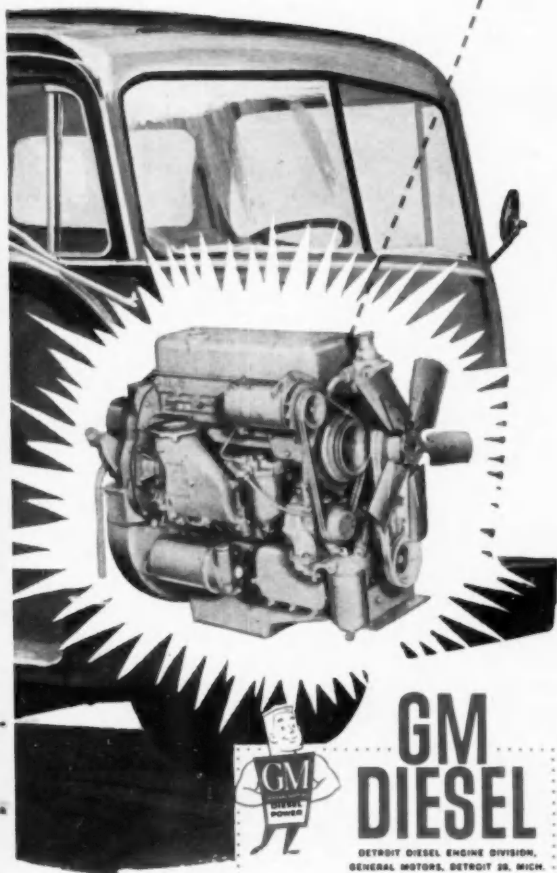
Weight? Almost feather-light—far lighter (and smaller) than any other Diesels in their range.

Speed? The "4-53's" 130 horsepower comes rolling out at a smart 2,800 rpm—so it drops right into most light trucks without any change in transmission or rear-axle ratio.

All these advantages make the Series 53 "Jimmy" Diesel engines the best buy for truckers, yes, and for bus and taxi owners, too. They can power school buses and 30- to 50-passenger coaches. In taxis they will give nearly twice the mileage you're getting with gasoline engines.

And don't forget, Series 71E "Jimmy" Diesel engines, for heavier trucks, are available in 8 leading makes.

Interested? Get all the facts from your nearest GM Diesel distributor or by writing GM Diesel, Dept. CC, Detroit 28, Michigan. Pick up your phone or pen now—why wait?



In Canada: GENERAL MOTORS DIESEL, LIMITED, London, Ontario
Parts and Service Worldwide



NEW

"6V-71"
112 to 252 H.P.



NEW

"8V-71"
150 to 334 H.P.



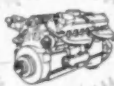
NEW

"6-110"
160 to 335 H.P.



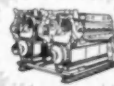
NEW

"12V-71"
224 to 304 H.P.



NEW

"16V-71"
300 to 675 H.P.



NEW

"24V-71" (Twin 12)
448 to 1008 H.P.



NEW

"32V-71" (Twin 16)
600 to 1350 H.P.
(Turbocharged—1650 H.P.)



CHECK YOUR TUNE-UP

CHEVROLET

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
Thriftmaster	235	6	3 9/16 x 3 15/16
Jobmaster	261	6	3 3/4 x 3 15/16
Trademaster	283 LD	8	3 7/8 x 3
Taskmaster	283 HD	8	3 7/8 x 3
Loadmaster	322	8	4 x 3.2
Workmaster	348	8	4 1/8 x 3 1/4

Note: LD = light duty. HD = heavy duty. Engines are identified by their displacement in the specifications below.

Oil Pressure

Engine

322.....	35 psi @ 1600 rpm
348.....	35 psi @ 2000 rpm
All others...	30 psi @ 1170-1200 rpm

Compression Pressure

Engine

235, 261....	130 psi @ cranking speed.
283 LD, 283 HD....	140 psi @ cranking speed.
322....	150 psi @ 140 rpm cranking speed.
348....	140 psi @ cranking speed with spark plugs removed and wide open throttle.

IGNITION

Cam Angle (Dwell)

All 6-cyl engines....	28-35 deg
All V-8 engines	28-32 deg

Breaker Point Gap

All models	New: .019 in.
	Used: .016 in.

Spark Occurs

(Degrees Before Top Center)

All 6-cyl engines.....	5 deg
283 V-8 Trademaster (with spark vacuum line disconnected—cover opening on manifold)	4 deg
Other V-8 engines	4 deg

SPARK PLUGS

Make & Type

Engine

6-cyl & 283 Trd M....	AC 44
283 Tsk Ms. & 322....	AC 42-1
348	AC 42N

Size

All engines	14 mm
-------------------	-------

Gap

All engines035 in.
-------------------	----------

Torque

Engine

235, 283, 348	25 lb-ft
261	15-25 lb-ft
322	22-28 lb-ft

VALVES

Operating Tappet Clearance (Hot unless noted)

Engine

235	Inlet: .006 in.
	Exhaust: .018 in.
261	Inlet: .006 in.
	Exhaust: .020 in.
283, 322, 348	Zero

Seat Angle

Engine

235, 261	Inlet: 31 deg
	Exhaust: 46 deg
All others	Inlet: 46 deg
	Exhaust: 46 deg

Face Angle

Engine

235	Inlet: 30 deg
	Exhaust: 45 deg
261	Inlet: 30 deg
	Exhaust: 46 deg
Trd M	Inlet: 45 deg
	Exhaust: 45 deg
Tsk M's, 348.....	Inlet: 45 deg
	Exhaust: 46 deg
322	Inlet: 45 deg
	Exhaust: 44 deg

TORQUE

Manifold Bolt

Engine

235....	Inlet: 25-35 lb-ft; Exhaust: center, 25-30 lb-ft; ends, 15-20 lb-ft
261....	Exhaust: center, 15-20 lb-ft; ends, 25-30 lb-ft
283, 348....	Inlet: 25-35 lb-ft; Exhaust: center, 25-30 lb-ft; end, 15-20 lb-ft
322....	Exhaust: center and end, 10-15 lb-ft

Cylinder Head Bolt

Engine

235, 261....	90-95 lb-ft (oiled threads).
283.....	60-70 lb-ft (oiled threads).
322	63-73 lb-ft
348	60-70 lb-ft

VALVE SPRINGS

Free Length

Engine

235	2.156 in.
261	2.281 in.
283	2.03 in.
322, 348	2.00 in.

Pressure

Engine

235	65 lb @ 1.843 in.
261	78 lb @ 1.843 in.
283....	Inlet & Exhaust (valve open): 155-165 lb @ 1.366 in.; (valve closed): 76-84 lb @ 1.696 in.
322....	(Valve open) Inlet: 91-97 lb @ 1.12 in.; Exhaust: 139-149 lb @ .960 in. (Valve closed) Inlet: 43-48 lb @ 1.50 in. Exhaust: 58-66 lb @ 1.34 in.

348...Valve open: 184-196 lb @
1.230 in. Valve closed: 78-86
lb @ 1.626 in.

BATTERY

Amp-Hour Capacity

Truck Model	
Forward control models....	72
School buses	70
All others	53

Plates Per Cell

School bus models	11
All others	9

Terminal Grounded

All models	Neg
------------------	-----

SAE Group No.

School bus models.....	3SM
All others	2SM

FRONT END

Toe-In

3100, 3200 series..	.13-.22 in.
4-wheel drive ....	.031-.156 in.
All others .....	.25-.31 in.

Camber

4-wheel drive	1½ deg
7000-10000 series..	½-1½ deg
All others	1¼-1¾ deg

Caster

At curb weight	
3100, 3200 series.....	1½ deg
4-wheel drive	1¾ deg
3600, 6000 H.....	3 deg
3800, 6000	2¼ deg
34-, 35-, 3700.....	2 deg
41-, 44-, 45-, 5000....	2 deg
5000 H, 8000, 10000...	2½ deg
6242, 6642	2¾ deg
7000, 9000	1¾ deg

King Pin Slant

4-wheel drive ...	8 deg
7000-1000 series..	4 deg
All others	6.16-8.18 deg

CAPACITIES

Crankcase

Engine

235	Without filter: 5 qt
	With filter: 6 qt

261 (filtered)	6 qt
322 (filtered)	7½ qt
348	without filter: 6 qt
	with filter: 7 qt
283...	
Trd M refill w/o filter:	4 qt
Tsk M's refill w/o filter:	5 qt

Transmission

Chevrolet 3-speed	2 pt
Chevrolet 4-speed	6¼ pt
New Process	9½ pt
Spicer 5-speed	12 pt
Powermatic (including heat ex-	
changer)	38 ft
Hydra-Matic	18 pt
With oil cooler.....	20 pt

Rear Axle

Single-Speed

Chevrolet: ½-ton	4½ pt
¾ and 1-ton.....	6½ pt
1½-ton	14 pt
2 and 2½-ton.....	19 pt
Eaton: 1614-1615	19½ pt
1790A-1791A	19 pt

Two-Speed

All Chevrolet	20 pt
Eaton: 16600	19 pt
17800-17801	18 pt

Cooling System

Truck Model

½, ¾, 1-ton...	
With 235 engine:	17 qt
With HD system..	17½ qt
With 283 engine ..	17½ qt
With HD system..	18 qt
1½-ton Special...	
With 235 engine ..	17½ qt
With HD system..	18 qt
With 283 engine ..	18 qt
With HD system..	18½ qt
5000 series...	
With 283 engine..	18 qt
With Powermatic:	21 qt
6000-6600 series...	
With 261 engine:	17 qt
With 283 engine..	18 qt
With 283 LD....	18 qt
With Powermatic:	21½ qt
7000-8800 series...	
With 283 engine..	23 qt
With Powermatic:	23½ qt
7000-10000 series...	
With 348 engine:	29 qt
With Powermatic.	29½ qt
10800 School bus...	
With 322 engine:	21½ qt
With Powermatic:	22 qt

LUBRICATION

Crankcase

All engines...Above 32 deg use SAE 20, 20W or 10W-30. From 0 to 32 deg use SAE 10W or 10W-30. Below 0 deg use SAE 5W or 5W-20. Note: For sustained high-speed driving when daylight temperature is above 90 deg, SAE 30 may be used.

Rear Axle

All models...SAE 90 multi-purpose gear lubricant.
On electric shift units...
SAE 10 engine oil.

Transmission

Conventional models....SAE 90 straight mineral oil gear lubricant or SAE 90 multi-purpose gear lubricant.
Hydra-Matic...Type A automatic transmission fluid.
Powermatic...Type C hydraulic transmission fluid or Type A automatic transmission fluid.

MODEL NUMBERS

Truck model...On forward control models see plate on left side of steering column. Flat face cowl models have plate on the front face of cowl's top panel. All other models have plate on the body hinge pillar.

Engine...V-8 engine numbers are on top of right hand bank at front. 6-cyl engine numbers are on boss at rear of distributor.

Transmission...On 3-speed conventional, Overdrive and 4-speed models number is on right of rear face. On automatic transmissions it is on left side at rear. On 5-speed models it is on right side at rear bottom. On 3-speed Heavy Duty unit it is on left side at rear.

Front axle...Number is stamped on center of axle.

Rear axle...On 3100 series number is on front face, center of axle. On all others it is on top center.

Dominant Choice

OF MOST ENGINE BUILDERS AND FLEET OWNERS



Pistons for every Engine
— Gasoline or Diesel

Proved by Fleet records everywhere
Highest Engine Performance
Lowest Maintenance Cost

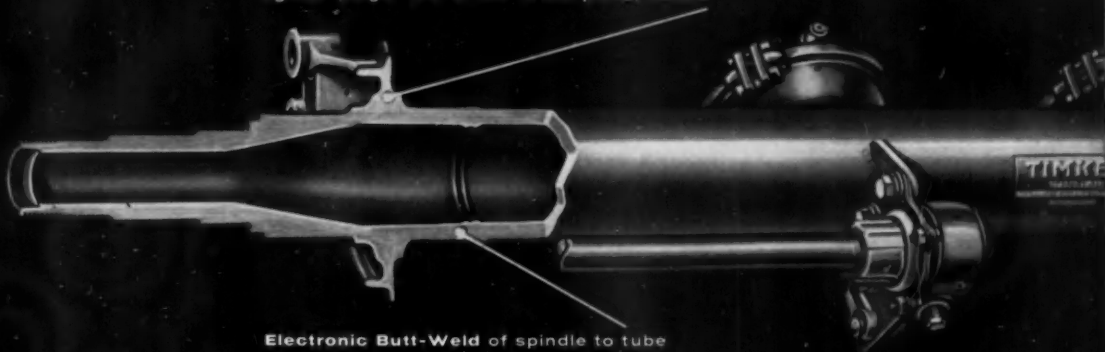
Experience is the best proof — and experience verifies the fact that fleets roll more profitably with Zollner piston equipment. Zollner Pistons are specifically tailored to individual engine requirements. In developing the most efficient piston for each heavy duty engine service, the close cooperation of engine manufacturers with Zollner engineers assures the utmost in piston performance and operating economy. Today, as for many years, Zollner Pistons are the equipment of over 70% of all makes of trucks and buses — and the dominant choice of fleet owners. Experience counts. Profit by specifying Zollner for every piston job.

Always Specify
ZOLLNER
PISTONS **HEAVY DUTY PISTONS by**
ZOLLNER

ZOLLNER CORPORATION • FORT WAYNE, INDIANA

TIMKEN-DETROIT TK-500 SERIES TRAILER AXLES ARE STILL THE LIGHTEST, SAFEST, MOST RUGGED YOU CAN BUY!

Rugged One-Piece Forged Steel Brake Spider is electronically welded to axle for lighter weight and better brake performance.



Electronic Butt-Weld of spindle to tube is the strongest section of the axle... guaranteed for life of the trailer!

*often imitated...
but never equaled!*



Plants at: Detroit, Michigan
Oshkosh, Wisconsin • Kenton and Newark, Ohio
New Castle, Pennsylvania

Every TK-500 Series Trailer Axle is "torture-tested" for safety.

Exclusive alloy steel spindles are upset forged and hot-pierced for greater strength at less weight.

One-piece forged alloy steel brake spider is practically indestructible... gives rigid brake support and never needs replacing.

Huge Rockwell designed welding machines electronically butt-weld the spindles to the seamless tubular section, making this the strongest section of the axle.

Only Rockwell-Standard has the facilities to perform these operations. Backed by 50 years of axle pioneering and billions of miles of trouble-free service, Rockwell-Standard is the accepted standard for the industry.

For maximum safety, less maintenance and more payload, specify and insist upon the Timken-Detroit TK-500... *there is no equal.*

A Product of ROCKWELL-STANDARD Corporation



CHECK YOUR TUNE-UP

DIAMOND T

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke
XL-264A	264	6	3 11/16 x 4 1/8
XL-372	272	6	4 3/8 x 4 1/8
XL-308A	308	6	3 13/16 x 4 1/2
DT6-145, DT6-170	331	6	4 1/8 x 4 1/8
DT6-185	362	6	4 1/4 x 4 1/4
DT8-207	390	8	3 7/8 x 4 1/8
XL-406	406	6	4 3/8 x 4 1/2
DT8-235	440	8	4 1/8 x 4 1/8
XL-450	450	6	4 3/8 x 5
XL-501	501	6	4 1/2 x 5 1/4
H-S 590 GV3	590	6	5 x 5
Cummins Diesels			
JT-6-B, JBS	401	6	4 1/8 x 5
HB-600, NH-180	672	6	4 7/8 x 5
NHB-, HRFB-600	743	6	5 1/8 x 6
NTO-6B, NRT-	743	6	5 1/8 x 6
GM Diesels			
4-71E	283.7	4	4 1/4 x 5
6-71E	425.6	6	4 1/4 x 5

Oil Pressure

XL-264A...

30-40 psi @ 1500 rpm

Other XL- engines...

35-45 psi @ 1500 rpm

DT6-series... 40-60 psi Max

DT8-series... 45-60 psi Max

H-S 590 GV3...

60 psi @ 2800 rpm

Cummins engines ... 30-50 psi

@ governed speed.

GM engines... 25 psi, mini-

mum @ idling speed

Compression Pressure

DT6-145...

110-130 psi @ 150 rpm

DT6-170, DT8-series...

130-150 psi @ 150 rpm

IGNITION

Cam Angle

Engine

XL-308A 28-35 deg

Other XL- engines.. 31-37 deg

H-S 590 GV3 31-37 deg

DT6-145 31-37 deg

DT6-170, DT6-185... 38-45 deg

DT8-series 26-33 deg

Breaker Point Gap

DT6-145022 in.

Other DT-engines016 in.



"Trucker!"

XL-308A016 in.

Other gasoline engines .022 in.

Spark Occurs

(Degrees Before Top Center)

Engine

XL-264A, DT6-145 2 deg

DT6-170 2 deg

XL-308A, DT8-series... 3 deg

Other XL- engines 5 deg

DT6-185 6 deg

SPARK PLUGS

Make & Type

Engine

XL-264A, XL-308A...

AC 44, AL AT-8, CH J-8

XL-372, XL-406...

AC 44 Com, AL AT-6, CH J-7

XL-450, XL-501...

AC 43-5 Com, AL AT-6, CH J-7

H-S 590 GV3...

AC 42, AL A-3, CH J-5

DT6-series...

CH J-6 (or equivalent)

DT8-series...

CH H-9 (or equivalent)

Size

All engines 14 mm

Gap

All XL- engines027 in.

All other engines025 in.

Torque

All engines 30 lb-ft

VALVES

Operating Tappet Clearance

(Hot Unless Noted)

XL-264A...

Inlet & Exhaust: .024-.026 in.

Other XL- engines...

Inlet & Exhaust: .020-.022 in.

H-S 590 GV3...

Inlet & Exhaust: .021 in.

DT6-145...

Inlet & Exhaust: .015 in.

DT6-185...

Inlet & Exhaust: .022 in.

Other DT-engines...

Inlet & Exhaust: .020 in.

Seat Angle

XL-264A... Inlet: 30 deg

Exhaust: 30 deg

Other XL- engines...

Inlet: 15 deg

Exhaust: 45 deg

H-S, 590 GV3...	Inlet: 45 deg
	Exhaust: 45 deg
DT-series	Inlet: 30 deg
	Exhaust: 30 deg

Face Angle

Engine	
XL-264A	Inlet: 30 deg
	Exhaust: 30 deg
Other XL- engines...	
	Inlet: 15 deg
	Exhaust: 45 deg
H-S, 590 GV3..	Inlet: 45¼ deg
	Exhaust: 45¼ deg
DT-series	Inlet: 29½ deg
	Exhaust: 29½ deg

TORQUE

Cylinder Head Bolt

Engine	
XL-264A	85- 95 lb-ft
Other XL- engines...	100-110 lb-ft
H-S 590 GV3...	
	¾-18: 140-160 lb-ft
	7/16-20: 30- 40 lb-ft
DT-series	100-105 lb-ft

Manifold Bolt

XL-engines	25-30 lb-ft
------------------	-------------

VALVE SPRINGS

Free Length

Engine	
XL-264A	2 11/16 in.
XL-308A	2 3/16 in.
Other XL- engines...	
	Inner: 2 11/32 in.
	Outer: 2 9/16 in.
H-S 590 GV3...	
	Inner: 2 7/8 in.
	Outer: 3 in.
DT6-series	2.1406 in.
DT8-series	2.1460 in.

Pressure

Engine	
XL-264A...	
	149-159 lb @ 1 11/16 in.
XL-308A...	
	182-190 lb @ 1 15/32 in.
Other XL- engines...	
	Inner: 83- 88 lb @ 1.503 in.
	Outer: 133-141 lb @ 1.706 in.
H-S 590 GV3...	
	Inner: 80 lb @ 1¾ in.
	Outer: 144 lb @ 1 13/16 in.
All DT-engines...	
	178-188 lb @ 1.360 in.

BATTERY

Amp-Hour Capacity

Truck Model	
430C, 431, 530C, 531, 534,	
534C, 630, 630C, 634,	
634C	70
723, 723JT, 731C, 921, 923	168
921C, 921E, 921N, 921R, 950	200
All others	150

Plates Per Cell

Truck Model	
430C, 431, 530C, 531, 534,	
534C, 630, 630C, 634,	
634C	13
723, 723JT, 731C, 921, 923	21
921C, 921E, 921N, 921R, 950	25
All others	19

SAE Group

Truck Model	
430C, 431, 530C, 531, 630,	
630C	3SHA
723, 921, 923, 923C.....	5H
91C, 921N, 921R, 950....	7H
All others	4H

Terminal Grounded

All models	Neg
------------------	-----

FRONT END

Toe-In

All models	1/8 in.
------------------	---------

Camber

921C (60FN 10 axle)....	0 deg
All others	1 deg



"Well, the motor turns over, so the starter is okay."

Caster

Truck Model

921C (60 FN 10 axle).	0 deg
All 6-wheelers	1½ deg
All others	1 deg

King Pin Slant

Truck Model

431, 531, 532	8 deg
431, 531, 532, 534, 634,	
734	8 deg
630, 630 (6 wheeler)...	4 deg
921C series, 720-950 se-	
ries with Shuler	
FE15, FE18 front	
axles	0 deg
All others	5½ deg

CAPACITIES

Crankcase

XL-264A	6 qt
XL-308A	7 qt
Other XL-engines	9 qt
DT-engines	8 qt
H-S 590 GV3	14 qt
Cum JT-6B, JBS-600....	16 qt
Other Cummins engines.	28 qt
GM 4-71E	20 qt
GM 6-71E	22 qt

Transmission

Warner T98, T98A	6 pt
X33, X330	11 pt
New Process 540	10 pt
Clark 205V & VO, 267V	
& VO	12 pt
Clark 290V & VO, 291V,	
292VO	18 pt
Clark 268V...	
Transverter:	12 pt
Converter:	13 pt
Spicer 4752, 4753	13 pt
Spicer 6452, 6453	17 pt
Spicer 8041, 8045	16 pt
Spicer 8251, 8255	24 pt
Fuller 5A65, FA650	24 pt
Fuller 5C72, FC720	24 pt
Fuller 10FA650, 10FB650	36 pt
Fuller R96, R960	36 pt
Fuller 10B 1120	44 pt
Fuller R45	17 pt
Fuller R46	19 pt
Fuller R95C, R950C	32 pt
Auxiliaries	
Spicer 6041, 6231, 7231..	8 pt
Spicer 8031, 8035, 8341,	
8345	12 pt

Rear Axle

Clark R1000	11 pt
(TURN TO PAGE 88, PLEASE)	

Diamond T

Continued from page 87

Eaton		
1350	13	pt
1790, 1791, 1792, 1793..	22	pt
1892, 1893, 18802, 18803	22	pt
1911, 19501, 19503	24	pt
2011, 20501, 20503	20	pt
22501	32	pt
2695, 2696	22	pt
22M (each axle)	12	pt
28M (each axle)	17	pt
32M	28	pt
Front:		
Rear:		
36M (each axle)	33	pt
42M (each axle)	24	pt
Front hole:		
Rear hole:		
56M (each axle)	20	pt
	24	pt

Timken		
SLD, SLDD (each axle)	28	pt
SLHD	33	pt
Front:		
Rear:		
SQD, SQDD (each axle)	22	pt
SQW (each axle)	40	pt
SW456 (each axle)	28	pt
SW3456 (each axle)	24	pt
SW3458 (each axle)	33	pt
SFD, SFDD 4600 (each axle)	28	pt
E100	15	pt
E300	13	pt
H100	20	pt
H200	28	pt
H300	26	pt
H140	18	pt
H240, H340	22	pt
L100	23	pt
L200, Q100	31	pt
L300	29	pt
Q200, R300	34	pt
Q300, QT240, QT340..	32	pt
QT140	24	pt
R100, R140	30	pt
R200	36	pt
RT240, RT340	32	pt
U200	38	pt
U300	39	pt

Cooling System

(For models with flat cast type radiators, add 8 qt to the following capacities.)

Truck Model

430C	29	qt
431	24	qt
530C, 723	33	qt
531	28	qt

532, 830	35	qt
532C	38	qt
534	27	qt
534C	30	qt
630, 662, 730, 830C	36	qt
630C, 730C	37	qt
634, 731C, 734	31	qt
634C, 734C	32	qt
662F, 730F	44	qt
830F	43	qt
831	42	qt
723F	41	qt
723C, JT & CJT	32	qt
723JTF, 921N, 921BN..	40	qt
738, 838	42	qt
921, 921B, 921R, 921BR..	42	qt
921F, 921FR	50	qt
921 FN	48	qt
921C, 921CR, 921CN....	55	qt
923, 923B	45	qt
923F	53	qt
950, 950RS	56	qt

LUBRICATION

Crankcase

XL- engines...Above 90 deg use SAE 50; Between 32 and 90 deg use SAE 40; Between 10 and 32 deg use SAE 20W; Below 10 deg use SAE 10W.

DT-engines...Above 32 deg use SAE 30; Between 20 and 32 deg use SAE 20W; Between

Avis' "New Look"



Avis Rent-a-Car System is introducing a new uniform for its feminine employees. It's a slim, free-form red dress and matching overseas cap. First girls to receive the free-form dresses are reportedly delighted with their new look. It is emphasized that the new dress is NOT a sack or chemise.

—10 and 20 deg use SAE 10W; Below —10 deg use SAE 5W.

H-S 590 GV3...Above 90 deg use SAE 40; Between 32 and 90 deg use SAE 30; Between 10 and 32 deg use SAE 20W; Below 10 deg use SAE 20W.

Cummins engines...Above 90 deg use SAE 30; Between 32 and 90 deg use SAE 20; Between 10 and 32 deg use SAE 10 or 20; Below 10 deg use SAE 20W.

GM-engines...Above 32 deg use SAE 30; Between 0 and 32 deg use SAE 20W; Below 0 deg use SAE 10W.

Transmission

Spicer...Use SAE 50 engine oil all year.

Fuller...Use straight mineral gear oil SAE 140 in Summer, SAE 90 in Winter, SAE 80 below 0 deg.

Clark, Warner, and New Process...Use straight mineral gear oil. Use SAE 140 in Summer, SAE 90 in Winter.

Rear Axle

Eaton planetary 2-speed...Use SAE 90 multi-purpose gear lubricant all year.

Eaton hypoid...Use SAE 90 multi-purpose gear lubricant all year. Above 100 deg use SAE 140; Below —10 deg use SAE 80.

Clark hypoid...Use SAE 90 multi-purpose gear lubricant all year. Above 100 deg use SAE 140.

Timken worm drive...Use SAE 140 all year. Below 0 deg use SAE 90.

Other Timken axles...Use SAE 140 multi-purpose gear lubricant all year. Below 0 deg use SAE 90.

MODEL NUMBERS

Truck Model...See name plate on chassis.

Engine...See plate on side of block.

Rear Axle and Transmission...stamped on name plate or on machined surface.

Looking for Instant Oil Control ?



Install...

AMERICAN HAMMERED KROME-OIL

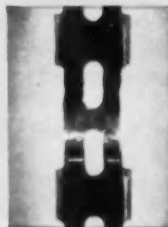
with Stainless Steel
Oil Rings

Fleet maintenance records show what you know—sludging and clogging are the main causes of oil ring failure. Krome-Oil ring sets with stainless steel oil rings resist sludging and clogging. *New material is the reason.*

Stainless steel—the *new material* in Krome-Oil sets—resists the corroding and pitting action of the gases in internal combustion engines (see below). The surface of the stainless steel expander stays clean and unpitted—carbon deposits and varnish build-ups can't get started. The oil vents don't plug.

Stainless steel oil rings are matched with pre-seated, chrome-plated compression rings. Both seat instantly.

Try Krome-Oil on your next job, new or older unit, regardless of cylinder condition. Krome-Oil sets don't fail. Try just one set and you'll see.



Typical portion of American Hammered stainless steel oil ring expander after thousands of miles in service. Note how clean and unpitted its surface is. How open the oil vents. Stainless steel resists sludging and clogging—licks the main causes of oil ring failure.

AMERICAN HAMMERED

Automotive Replacement Division
MUSKEGON, MICHIGAN

A Division of Sealed Power Corporation





CHECK YOUR TUNE-UP

DIVCO

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
Divco Super 6	252.6	6	3 1/2 x 4 3/8
Con F4162	162	4	3 7/16 x 4 3/8
Con F4162 Super	162	4	3 7/16 x 4 3/8
Her QXD3	229.7	6	3 7/16 x 4 1/2

Oil Pressure

Engine

Divco Super 6...	30-50 psi @ high spd. Hot
Con engines...	30-40 psi @ high spd. Hot
Her QXD3...	25-30 psi @ high spd. Hot

Compression Pressure

Engine

Divco Super 6, Her QXD3...	120 psi @ cranking speed
Con engines...	110 psi @ cranking speed

IGNITION

Cam Angle (Dwell)

Engine

Divco Super 6.....	38-45 deg
Con engines	25-34 deg
Her QXD3	31-37 deg

Breaker Point Gap

Engine

Divco Super 6.....	.021 in.
Con engines .....	.020 in.
Her QXD3 .....	.018 in.

Spark Occurs

Degrees before (B) or after (A)
Top Center

Engine

Divco Super 6	4A
Con engines	9B
Her QXD3	4B

SPARK PLUGS

Make & Type

Divco Super 6...CH J-8 or AC 45
Con engines...CH 8 Com or AC 86
Her QXD3...CH J-11 or AC 48 Com

Size

Con engines	18 mm
All others	14 mm

Gap

Engine

Divco Super 6.....	.030 in.
Con engines .....	.035 in.
Her QXD3 .....	.025 in.

Torque

Divco Super 6.....	25-30 lb-ft
Con engines	30 lb-ft
Her QXD3	30 lb-ft

VALVES

Operating Tappet Clearance

(Hot unless noted)

Divco Super 6..	Inlet: .012 in.
	Exhaust: .016 in.
Con F4162 (Cold)...	
	Inlet: .012 in.
	Exhaust: .014 in.
Con F 4162 Super (Cold)...	
	Inlet & Exhaust: .016 in.
Her QXD3	Inlet: .008 in.
	Exhaust: .010 in.

Seat Angle

Divco Super 6.....	Inlet: 30 deg
	Exhaust: 45 deg

Con engines	Inlet: 30 deg
	Exhaust: 45 deg
Her QXD3...	
	Inlet & Exhaust: 30 deg

Face Angle

Divco Super 6.....	Inlet: 29 deg
	Exhaust: 44 deg
Con engines	Inlet: 30 deg
	Exhaust: 45 deg
Her QXD3...	
	Inlet & Exhaust: 30 deg

TORQUE

Manifold Bolt

Divco Super 6.....	15-20 lb-ft
Con engines.....	35-40 lb-ft
Her QXD3.....	60 lb-ft

Cylinder Head Bolt

Engine

Divco Super 6.....	65-70 lb-ft
Con engines	70 lb-ft
Her QXD3	60 lb-ft

VALVE SPRINGS

Free Length

All engines	2 1/16 in.
-------------------	------------

Pressure

Engine

Divco Super 6...	53 lb @ 1 13/16 in.
Con engines...	50 lb @ 1 11/16 in.
Her QXD3..	41 lb @ 1 9/32 in.

BATTERY

Amp-Hour Capacity

All models.....	105
-----------------	-----

Plates Per Cell

All models	15
------------------	----

Terminal Grounded

All models	Pos
------------------	-----

SAE Group

All models	1
------------------	---

FRONT END

Toe-In

All models	1/16 in.
------------------	----------

Camber

All models	1 deg
------------------	-------

Caster

All models (empty)... 1½ deg

King Pin Slant

All models 8 deg

CAPACITIES

Crankcase

Divco Super 6..... 6 qt
Con engines 3½ qt
Her QXD3 5 qt

Transmission

Truck Model

41, 42, 51, 52..... 7¼ pt
All others 5 pt

Rear Axle

Truck Model

214, 224, 334, 374.... 7½ pt
41, 51 11 pt
All others 5½ pt

Cooling System

Truck Model

11, 12, 13, 114, 124, 134, 364...
11 qt
41, 42, 51, 52..... 16 qt
All others 12½ qt

LUBRICATION

Crankcase

Divco Super 6...

Summer: SAE 20W
Winter: SAE 10W

All others...

Summer: SAE 30
Winter: SAE 20W

Transmission

All models... Use Multi-Purpose
gear lube. Summer: SAE 140;
Winter: SAE 90.

Rear Axle

All models...

Summer: SAE 140
Winter: SAE 90

MODEL NUMBERS

Truck model... On capacity plate at windshield header (RH) on all models. Also stamped on right hand frame side rail at upper part of drop center (lift transmission cover to see) on Models Nos. 41, 42, 51 and 52. On all other models,

also on right hand frame corner gusset (lift right hand hood to see).

Engine... Divco Super 6-Cyl—Right front upper side of cylinder block just below cylinder head (spot painted yellow). Continental—left side of engine on data plate and on raised pad of cylinder block near head at left front. Hercules QXD3—Right side on data plate and on cylinder

block near cylinder head at left side, upper center.

Transmission... Left rear upper corner of transmission case next to corner of tower on upper flat surface.

Rear Axle... Timken—On plate riveted to rear surface of left hand housing center. Banjo housing type, L-150 and L-160 —Stamped on upper part of front of pinion carrier housing.

VAN NORMAN

FLEET SHOP HEAVY DUTY SERVICE EQUIPMENT



No. 561

Automatic Wet Surface
Grinder for Exhaust
above the wheel wet grinding of all heads, blocks,
and manifolds with quickest set-up time. Three
models — 36", 46" and 60" capacities.



No. 570

Rotary Broach uses new
cutter action to quickly
machine cylinder heads,
engine blocks, and other surfaces. Top-side
loading keeps chips out of work. Only machine
of its kind!



No. 777-5-4

Four speed, portable, PERFECT-O Boring Bar for ONE CUT, hard-sleeve and standard cylinder rebaring. Special vacuum "SUCKER-OUTER" keeps dust and chips from crankcase and oil holes. Three other models available.



No. 467

Heavy-duty, one-man, Crankshaft Grinder to shafts up to 84" x 22". Fast accurate, vibrationless operation. One of eight machines in this series.



No. 404

Brake Drum Lathe turns and grinds simultaneously with dust-free Vapo-Jet Wet Grinding Attachment. Multiple speeds — multiple feeds. Exclusive Load-Compensator supports all drums and tire assemblies.



No. 304

Medium priced, Heavy-duty, Brake Drum Lathe for handling drums on cars and trucks up to 10 tons! Features simultaneous turning and grinding with exclusive Vapo-Jet Wet Grinding Attachment.



No. 302

Moderately priced "Little Brute" Brake Drum Lathe takes passenger car and light truck drums mounted up to 500 pounds. Turns and grinds at same time with optional Vapo-Jet Wet Grinding Attachment.



No. 253

Camshaft Grinder speeds up and precisely reconditions worn camshafts 52" between centers, 9" maximum diam. Also grinds main camshaft bearings. 84" model available.

PRECISION THE VAN NORMAN LINE MACHINING

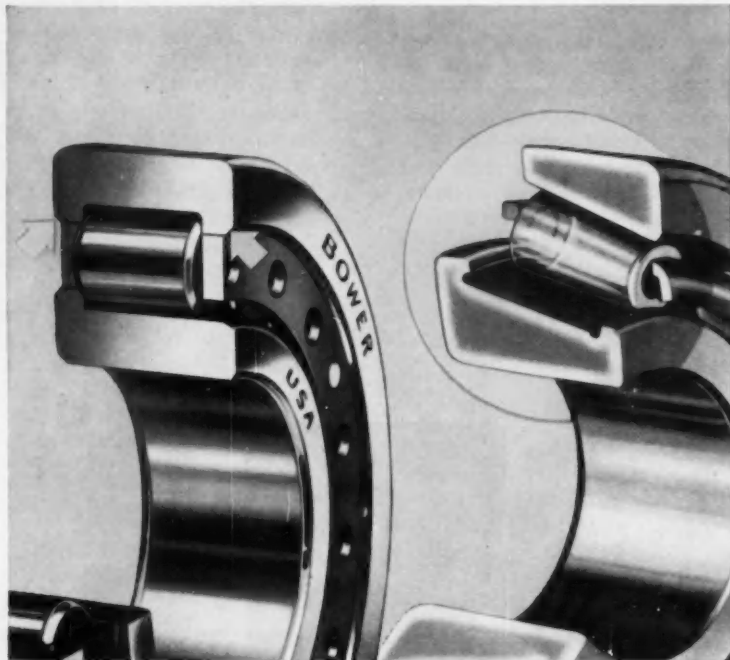
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VAN NORMAN AUTOMOTIVE EQUIPMENT CO.

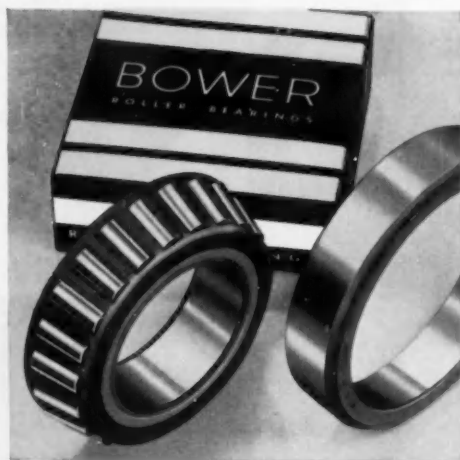
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Better products, faster, from your Bower bearing jobber:



COUNT ON BOWER for easy installation, extra-long service life in heavy-duty fleet operation.

Exclusive features make Bower roller bearings your best buy for heavy-duty fleet service!



Spher-O-Honed tapered and "Two-Lip" straight roller bearings run with less friction and wear; carry heavier loads longer!

Fleet service is rugged duty for trucks, tractors and trailers, yet equipment must keep rolling to return a profit on its cost! It's a job for each component to share, and Bower does its part by building these long-life features into every roller bearing:

Circle highlights the exclusive *Spher-O-Honed* design of Bower tapered roller bearings. Contour-ground rollers, larger oil groove and super-finished raceways team up to reduce friction and wear, stretch service life. Arrows point out the special "Two-Lip" construction of Bower straight roller bearings. Their greater rigidity and improved roller alignment let them carry heavier loads longer—and with less maintenance.

Tapered or straight, Bower roller bearings can help keep your equipment running smoothly . . . and profitably. Your Bower bearing jobber gives fast delivery from stock. Call him today!

BOWER ROLLER BEARINGS

FEDERAL-MOGUL SERVICE

DIVISION OF FEDERAL-MOGUL-BOWER BEARINGS, INC. • DETROIT 13, MICHIGAN





Preventive Maintenance At Work

"Our Mack diesels are used for
the country's roughest territory ...
but Purolator Air Filters keep their engines
in top condition ... keep our PM costs way down"

says Mr. Merle W. Bogan, Service Manager, Smith's Transfer, Staunton, Va.

PART of the operating terrain of Smith's Transfer—between Staunton, Va. and Charleston, W. Va.—is recognized by truck manufacturers and fleet operators as just about the toughest in the country ... grueling mountain territory that demands maximum air filter and engine efficiency.

But according to Mr. Bogan, their 175 Mack END 673 diesels show "no measurable wear on rings, walls, or valves at 250,000 miles and higher, due primarily to the exceptional filtering efficiency of Purolator Air Filters."

To insure this outstanding performance, Smith's Transfer uses Purolator Air Filters exclusively. As part of a rigid PM procedure, the dry-type air filters are serviced regularly. Consequently, regardless of road or weather conditions, there has never been a power loss attributed to the air filter.

Most important, Smith's Transfer enjoys the major benefits of extended engine life with lower maintenance cost and a minimum of down time. Even after exceeding the high mileages indicated, there is no appreciable

change in fuel consumption. This can be attributed to the combustion efficiency which is almost equal to new-engine performance, and is achieved by preventing power-robbing dirt from entering the engine.

Let a Purolator engineer demonstrate, without obligation, the advantages and economies of air filtration for your particular fleet requirements.

Write or call ...
or send for free
literature today.



FOR MAXIMUM ENGINE PROTECTION

PUROLATOR

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Oil, Air & Fuel Filters

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Rahway, New Jersey
Yes, I want more information about
dry-type filtration for fleets.

Name

Company Name

Address

City Zone State



CHECK YOUR TUNE-UP

DODGE

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
230	230.2	6	3.25 x 4.625
250	250.6	6	3.437 x 4.50
265	265.37	6	3.437 x 4.766
265 (a)	265.37	6	3.437 x 4.766
315 HD DR	314.61	V-8	3.63 x 3.80
318	318.14	V-8	3.91 x 3.312
318 HD	318.14	V-8	3.91 x 3.312
354 DR	354.06	V-8	3.94 x 3.63
354 DR (a)	354.06	V-8	3.94 x 3.63

(a)—Twin 2-barrel carburetors. HD—Heavy duty model. DR—Double rocker shaft and hemispherical combustion chambers.

Oil Pressure

All 6-cyl engines... 40 psi @ 800 rpm
All 8-cyl engines... 50-65 psi @ 1500 rpm

Compression Pressure

(At minimum engine cranking speed of 150 rpm with spark plugs removed and wide open throttle.)

Engine	
230	120-160 psi
250, 265	130-145 psi
315	120-155 psi
318, 318 HD	120-160 psi
354 DR	100-140 psi

IGNITION

Cam Angle (Dwell)

All 6-cyl engines ...	36-42 deg
318, 318 HD, 315 DR	29-32 deg
354 DR (on C700 only)	27-32 deg
354 DR	26-29 deg

Breaker Point Gap

All 6-cyl engines...	.018-.022 in.
All V-8 engines...	.015-.018 in.

Spark Occurs

(Degrees Before Top Center)

All 6-cyl engines ...	2½ deg
All 315 V-8 engines..	6 deg
All 318 V-8 engines..	10 deg
All 354 V-8 engines..	4 deg

SPARK PLUGS

Make & Type

All 6-cyl engines...	AL AR-51
315 & 318 V-8's	AL AR-41
All other V-8's.....	AL AGR-41

Size

All engines	14 mm
-------------	-------

Gap

All engines	.035 in.
-------------	----------

Torque

All engines	30 lb-ft
-------------	----------

VALVES

Operating Tappet Clearance (With Hot engine)

Engine	
265	Inlet: .010 in. Exhaust: .018 in.

Other 6-cyl.....	Inlet: .010 in. Exhaust: .014 in.
318 V-8	Inlet: .008 in. Exhaust: .018 in.
All other V-8's...(including 318 HD)	zero lash, inlet and exhaust.

Seat & Face Angle

All engines...	Inlet & Exhaust: 45 deg
----------------	-------------------------

VALVE SPRINGS

Free Length

All 6-cyl engines...	
Inlet & Exhaust: 2	in.
318...	
Inlet & Exhaust: 2.00	in.
315 HD	Inlet: 2.00 in. Exhaust: 1 13/16 in.
354	Inlet: 2.00 in. Exhaust (Inner and Outer): 1 15/16 in.

Pressure

All 6-cyl engines...	Inlet and Exhaust: 107-116 lb compressed to 1¾ in.
318...	Inlet & Exhaust: 160-172 lb compressed to 1 5/16 in.
315 HD...	Inlet: 160-172 lb compressed to 1 15/16 in. Exhaust: 134-146 lb compressed to 1 13/16 in.
354...	Inlet: 160-172 lb compressed to 1 5/16 in. Exhaust (inner): 40-45 lb compressed to 1 13/16 in. Exhaust (outer): 122-130 lb compressed to 1 5/16 in.

TORQUE

Cylinder Head Bolt

All 6-cyl engines	70 lb-ft
All 8-cyl engines	85 lb-ft

BATTERY

Amp-Hour Capacity

Truck Model	
All 700, 800, 900 series...	70
S400-600, D400-600	60
W300, W500 (6-cyl eng)...	60
All others	50

Plates Per Cell

All 700, 800, 900 series	13
All others	11

Terminal Grounded

All models Neg

FRONT END

Toe-In

All models 0-1/8 in.

Camber

(Front axle models designated by rated capacity.)

2500-3750 lb	1 1/2 deg
4000 lb	2 deg
4500 lb	1 1/2 deg
5000 lb	2 deg
6000-9000 lb	1 deg
7500 lb	3/4 deg

Caster

(Front axle models designated by rated capacity and truck application.)

2500 lb	3 deg
2800 lb	2 1/2 deg
3000 lb	3 deg
3750 lb	1/2 deg
"M" models	1/4 deg
4000 lb	1 1/2 deg
4500 lb	3 1/2 deg
5000 lb (C&D 600-700)	1/4 deg
On other trucks:	2 1/2 deg
6000, 7000 lb	2 3/4 deg
7500 lb	2 1/2 deg
9000 lb	3 1/4 deg

King Pin Slant

(Front axle models designated by rated capacity.)

2500, 2800 lb	4 deg
3000, 4500 lb	7 1/2 deg
3750, 7500 lb	8 deg
4000, 5000 lb	7 deg
6000-9000 lb	5 1/2 deg

CAPACITIES

Crankcase

(Without filter. Filters are 1 or 2 quart added capacity.)

All 6-cyl engines	5 qt
315, 318	5 qt
354	8 qt
On "M" models:	7 qt

Transmission

Dodge 3-speed	2 3/4 pt
With Overdrive ..	3 1/2 pt
Warner T85E	2 3/4 pt
New Process 89905...	3 1/2 pt

Warner T87D	6 pt
New Process 420.....	5 1/2 pt
New Process 540.....	9 1/2 pt
Clark 265	12 pt
Clark 300	15 pt
"Torqmatic"	22 pt
"Load Flite"	19 pt
Spicer Auxiliaries...	
5831, 3-speed:	4 pt
6231, 3-speed:	8 pt
6041, 4-speed:	8 pt

Transfer Case

New Process 91000....	6 1/2 pt
New Process 39360....	5 pt
Timken T223-E	4 pt

Rear Axle

Dodge 3600 lb	3 3/4 pt
Dodge 6500 lb	5 1/2 pt
Dodge 6500 lb opt ...	6 pt
Dodge 8000 lb	6 pt
Timken F-147	16 pt
Eaton 1614	17 pt
Timken H-141	20 pt
Timken L-140	22 pt
Timken QT-140	24 pt
Timken RT-140	30 pt

Two-Speed

Eaton A5-1350, 13800..	13 pt
Eaton 16600	20 pt
Timken H-341	22 pt
Timken L-340	24 pt
Timken QT-340	32 pt
Timken RT-340	33 pt

Tandem (Bogle Unit)

Timken SDHD	33 pt
Timken SFHD	35 pt
Timken SLHD, SQHD..	52 pt

Cooling System

Truck Model

D100-D300-P300...	
6-cyl engine: 12	qt
8-cyl engine: 20	qt

P400, W100, W200...

6-cyl engine: 12	qt
8-cyl engine: 20	qt
W300M	17 qt
W300... 6-cyl engine: 18	qt
8-cyl engine: 24	qt

D400, S400...

6-cyl engine: 18	qt
8-cyl engine: 22	qt
D500, S500...250 engine: 18	qt
265 engine: 15 1/2	qt
314 engine: 25	qt

W500...

6-cyl engine: 19	qt
8-cyl engine: 22	qt
C500, C600	22 qt
D600, S600...	

6-cyl engine: 19	qt
8-cyl engine: 25	qt
700 series	25 qt
800 series	26 qt

LUBRICATION

Crankcase

All engines...Above 32 deg use SAE 30; From 10 to 32 deg use SAE 20W; From -10 to 10 deg use SAE 10W; Below -10 deg use SAE 5W.

Transmission

All manual transmissions..Above -10 deg use SAE 90; Below -10 deg use SAE 80.

"Load Flite"...Above -10 deg use Type A automatic transmission fluid; Below -10 deg for prolonged operation replace fluid with 1 quart refined kerosene.

"Torqmatic"...Above -10 deg use Type A or C automatic transmission fluid. Below -10 deg use Type A only.

Rear Axle

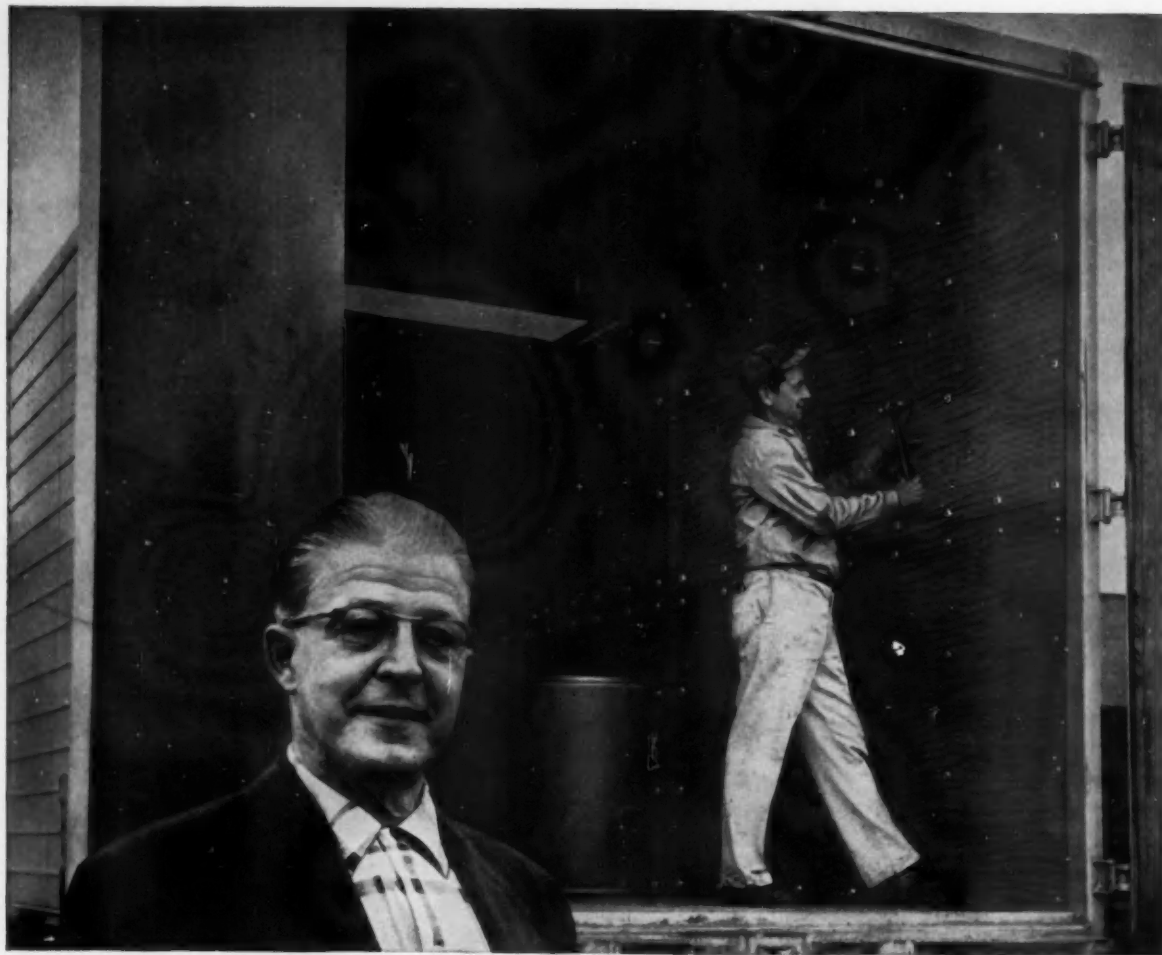
All models delivered with SAE 90 multi-purpose gear lubricant. Single-speed (Models 100-500)...Above 90 deg use SAE 140; From -10 deg to 90 deg use SAE 90; Below -10 deg use SAE 80.

Single and 2-speed models (Models 400, 500, 600)...Above 90 deg use SAE 140; From -10 to 90 deg use SAE 90; Below -10 deg use SAE 80.

All other single and 2-speed axles and inter-axle differentials...Above 0 deg use SAE 140; Below 0 deg use SAE 90.



"To get at those hard-to-reach areas."

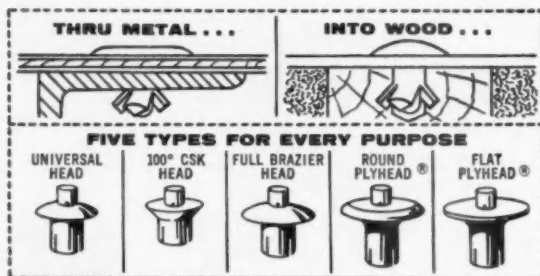


"I'll tell you why we insist on Drive Riveted linings in all our *new* equipment too..."

"It's because they require no servicing. You don't have to go over the interior periodically to tighten up the fasteners. Southco Drive Rivets stay tight.

"And big PLY-HEAD® drive rivets never crush the plywood and work loose.

"You can put them in fast, too. On new or repaired equipment we want Southco Drive Rivets."



Southco Division, South Chester Corp., 228 Industrial Highway, Lester, Pa.



©1959

LION

FASTENERS IMPROVE TRUCK BODY,
TRAILER AND BUS CONSTRUCTION



PHONE YOUR LOCAL SOUTHCO DISTRIBUTOR

To assure top bearing accuracy we even make our own gages

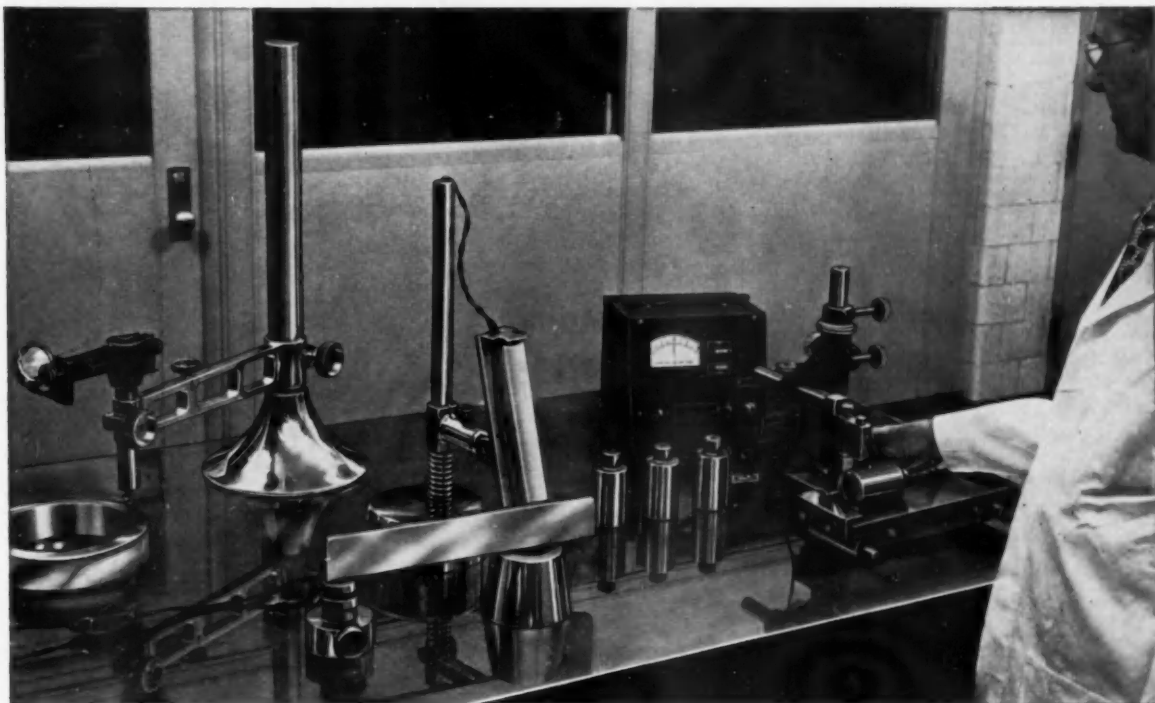
*(Another reason why TIMKEN® bearings are
first choice with truck manufacturers)*

TO make the finest tapered roller bearings we need the most accurate gages and gage facilities. Some of our gages are so special we had to make them ourselves. For example, we made the huge surface plate shown below. Its finish is so perfect that you can't lift off a precision gage-block that has been pressed on; you have to *slide* it off. It helps us maintain top gage accuracy, and in turn, top bearing accuracy. It's another way we make Timken® bearings better.

Timken bearings are geometrically designed to roll

true. And they're made to live up to their design at every step, through rigid quality control. We even make our own steel—America's only bearing manufacturer that does. It all adds up to why Timken bearings are first choice with truck manufacturers.

It's worth your while to do as they do. Always specify Timken bearings . . . your best choice for replacement. Look for the trade-mark "TIMKEN". And send for the free, helpful booklet, "The Care and Maintenance of Timken Tapered Roller Bearings in Automotive Equipment." Write Dept. JCC-4, The Timken Roller Bearing Company, Canton 6, Ohio. Cable address: "TIMROSCO".



**SINCE THEY'RE BEST WHEN
THE TRUCK IS NEW, THEY'RE
BEST FOR REPLACEMENT, TOO!**



TIMKEN

TRADE-MARK REG. U. S. PAT. OFF.

TAPERED ROLLER BEARINGS ROLL THE LOAD



CHECK YOUR TUNE-UP

DUPLEX

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
Hercules JXD	320.0	6	4 x 4 1/4
Hercules WXLC-3	404.0	6	4 1/4 x 4 1/4
Hercules RXC	529	6	4 5/8 x 5 1/4
Hercules RXLD	558	6	4 3/4 x 5 1/4
Continental F6244	244	6	3 7/16 x 4 3/8
Continental B6427	427	6	4 5/16 x 4 7/8
Continental U6501	501	6	4 1/2 x 5 1/4
Continental R6602	602	6	4 7/8 x 5 3/4

Oil Pressure

Her JXD, WXLC-3...
26 psi @ 1600 rpm
Her RXC, RXLD...
36 psi @ 1600 rpm
Continental engines...
55-65 psi @ 2000 rpm

Continental engines. 39 deg

Breaker Point Gap

Hercules engines020 in.
Continental engines .. .022 in.

SPARK PLUGS

Make & Type

Her engines AL AT-8
Con U6501 CH 5 Com
Con R6602 CH J-8
Other Con CH 8 Com

Size

Hercules engines 14 mm
Con R6602 14 mm
Other Con engines.... 18 mm

IGNITION

Cam Angle (Dwell)

Hercules engines ... 31-37 deg

Gap

All models025 in.

VALVES

Operating Tappet Clearance

Her JXDInlet: .006 in.
Exhaust: .008 in.
Her WXLC3Inlet: .006 in.
Exhaust: .010 in.
Her RXC, RXLD...Inlet: .010 in.
Exhaust: .016 in.
Continental engines..See page 176

VALVE SPRINGS

Pressure

(Valve Open)

Her JXD... 58 lb @ 1.594 in.
Other Her engines...
102 lb @ 2.156 in.
Continental engines..See page 176

LUBRICATION

Crankcase

TH and WC 244 models...Above
80 deg use SAE 40; Between
32 and 80 deg use SAE 30;
Between 0 and 32 deg use
SAE 20W
All others...Above 80 deg use
SAE 50; Between 32 and 80
deg use SAE 40; Between 0
and 32 deg use SAE 20W

Transmission & Rear Axle

All models...In Summer use SAE
140, in Winter use SAE 90



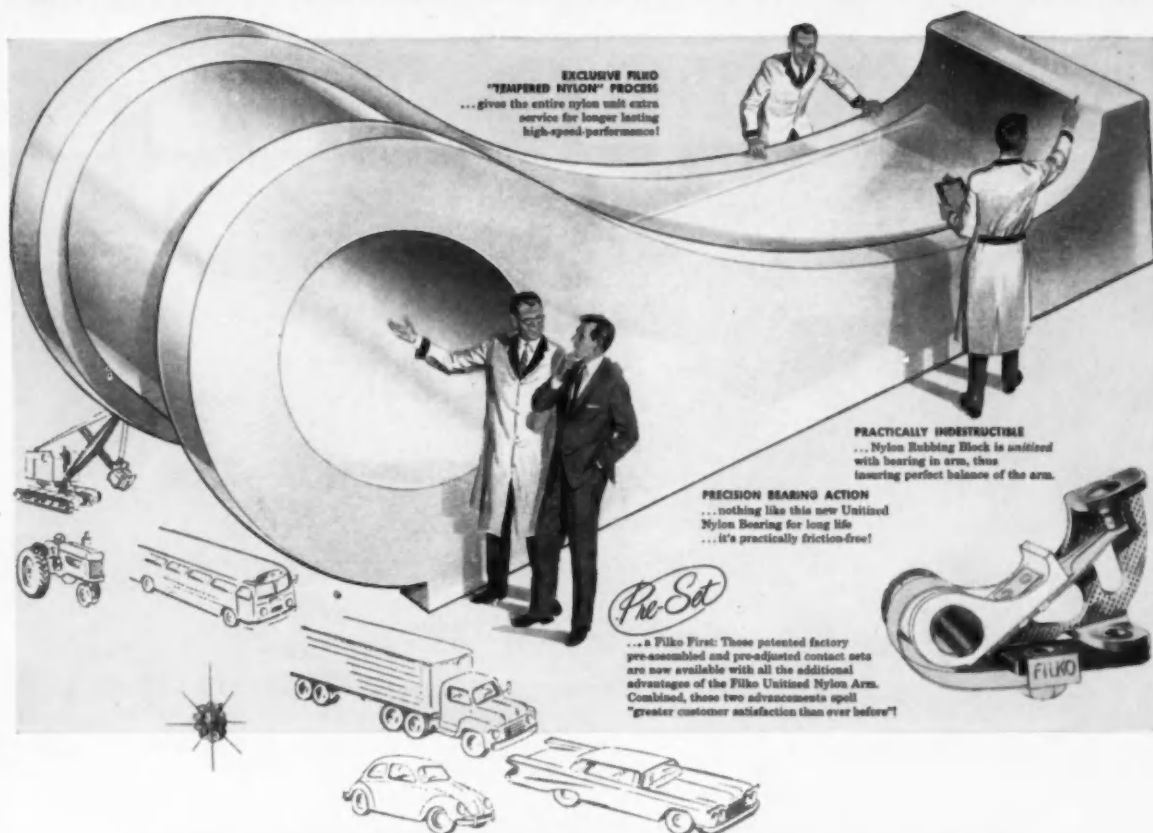
Truckers Help Tornado Victims

The trucking industry in the St. Louis, Mo., area played a valuable role in helping the Red Cross in administering relief following the disastrous tornado of Feb. 10th. Three trucking firms provided trucks and drivers without cost to the Red Cross, to help relocated families who lost their homes in the tornado. Sloan's Moving & Storage Co., Spencer's Moving & Storage Co., and Reid Bros. Express & Transfer Co. (shown here) were the fleets involved. Teamsters locals 600 and 610 provided additional manpower to help with the work.

Filko GOES ALL THE WAY!

NOW FOR ALL 3 SYSTEMS CHRYSLER • GM and FORD FAMILIES

UNITIZED NYLON ARM



Filko FIRST WITH COMPLETE LINE!

Bearing—Rubbing Block—Arm—all three are now combined into *one* Unitized Nylon Unit. Here is streamlined, light weight construction that *insures* perfect *precision-set* point alignment for the entire life of the unit! Again, Filko Completeness extends the range of fleet applications on this latest ignition

achievement... with the *first complete* line of Unitized Nylon Arm Contact Sets—in both "Pre-Set" factory pre-assembled and conventional types. Here, again, is another reason why every "Crown Jewel of Ignition" is more than a replacement part... it's a true improvement in ignition!

... another reason why the entire industry is following Filko!

filko *Crown Jewels of Ignition*
 F. & S. MFG. CO., 4240 N. Chicago Ave., Chicago 51, Ill.
 20 Public Warehouse facilities serving all leading trade areas.

G-603FO

COMMERCIAL CAR JOURNAL, April, 1959

99

NOW—there's an that's

The advertisement features a collection of AC Spark Plugs. In the center, a large AC Spark Plug is held by a hand, with the AC logo prominently displayed. Surrounding it are several other models: 44 XL, 42 N, 42-1, 42-5, and 831. The background is dark, making the metallic plugs stand out.

Ten special
14 MM plugs for
Chevrolet, GMC, and
other popular trucks

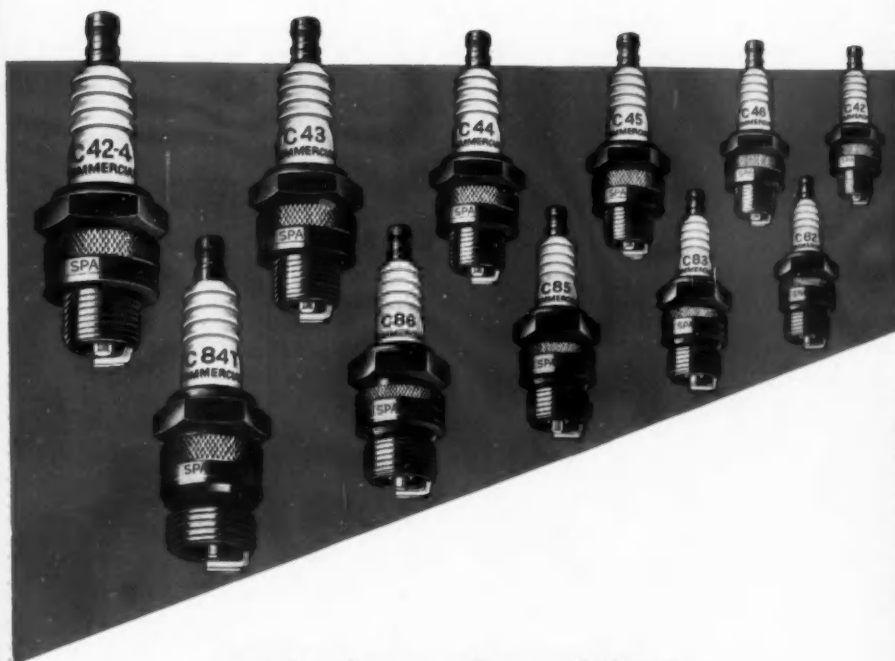
Six 18 MM plugs
for still other
truck applications

SAVE IN THE LONG RUN WITH

AC

QUALITY

AC spark plug right on your job



get it from the widest selection in the field . . .

Spark plugs work better and last longer when they're fitted to the job. That's why AC — through years of research and millions of miles of testing — has developed special commercial spark plugs to meet every hauling need.

The result is the widest selection of special spark plugs in the commercial car field. Right now, this selection includes ten special 14 MM plugs for Chevrolet, GMC, and other popular trucks, and six 18 MM plugs for still other truck applications. Controlled tests with 44 fleets covering 2,260,000 miles proved that the right plug for the specific use provides operating economies that more than justify replacement costs.

Now you can select your spark plugs from this complete quality line. You can pinpoint your plugs to your specific operation. Thus, you'll get more efficient performance, less frequent servicing and lower replacement costs.

AC SPARK PLUG  THE ELECTRONICS DIVISION OF GENERAL MOTORS

COMMERCIAL CAR JOURNAL, April, 1959



AC ENGINEERS WILL GIVE YOU A HAND . . .

Through years of experience fitting spark plugs to specific commercial jobs, AC has amassed a wealth of information to help cut your operating costs. To find out how this experience can be of value to you, call the nearest AC office.

New York, N. Y. . . . PLaza 7-4000
Chicago, Ill. . . . Rogers Park 4-9600
Detroit, Mich. . . . TRinity 5-2630
Philadelphia, Pa. . . . MOhawk 4-6030
Los Angeles, Cal. . . . RAYmond 3-5171
Atlanta, Georgia . . . TRinity 5-0648
Dallas, Texas . . . EMerson 8-5839
Kansas City, Mo. . . . JEFFerson 1-7350
San Francisco, Cal. . . . DIamond 2-6061
Cleveland, Ohio . . . SUPerior 1-6930



CHECK YOUR TUNE-UP

FREIGHTLINER

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
White 490-A	531	6	4 $\frac{3}{4}$ x 5
Hall-Scott 590 (G & B)	590	6	5 x 5
Hall-Scott 6156 (G & B)	935	6	5 $\frac{3}{4}$ x 6
Hall-Scott 6182 (G & B)	1091	6	5 $\frac{3}{4}$ x 7
Cummins Diesels			
JT-6-B	401	6	4 $\frac{1}{8}$ x 5
NH-180*, NH-195*	672	6	4 $\frac{7}{8}$ x 6
HR-6-B*, HRFB	743	6	5 $\frac{1}{8}$ x 6
NH-220*, NHS-6-B,			
NHRS-6-B*	743	6	5 $\frac{1}{8}$ x 6
NRT-6-B*, NRT0-6-B	743	6	5 $\frac{1}{8}$ x 6
NT-6-B*, NTO-6-B	743	6	5 $\frac{1}{8}$ x 6

* Horizontal and vertical.

Oil Pressure

White 490A...40-60 psi @ governed speed.

H-S 59060 psi @ 2800 rpm

H-S 615660 psi @ 2400 rpm

H-S 618210 psi @ 350 rpm

Cum JT-6-B30-60 psi @ governed speed.

Other Cum engines...30-50 psi @ governed speed.

SPARK PLUGS

Make & Type

White 490-A CH D-10

H-S 590 CH J-5

H-S 6156G, 6182G...

Inlet: CH 9 Com

Exhaust: CH 6 Com

H-S 6156B, 6182 B...

Inlet: CH 6 Com

Exhaust: CH 4 Com

Size

White 490-A 18 mm

H-S 590 14 mm

H-S 6156, 6182 18 mm

Gap

White 490-A025 in.

H-S 590G025 in.

H-S 590B015 in.

H-S 6156, 6182018-.023 in.

IGNITION

Cam Angle

White 490-A 31-37 deg

H-S 590 31-37 deg

H-S 6156, 6182 27-37 deg

Breaker Point Gap

White 490-A022 in.

H-S 590022 in.

H-S 6156, 6182021 in.

Spark Occurs

(Degrees Before Top Center)

White 490-A 6 deg

H-S 590G 5 deg

H-S 590B 10 deg

H-S 6156G, 6182G 2 deg

H-S 6156B 4 deg

H-S 6182B 8 deg

VALVES

Operating Tappet Clearance

White 490-A zero

H-S 590 (Cold)...

Inlet & Exhaust: .022 in.

H-S 6156, 6182 (Cold)...

Inlet: .021 in.

Exhaust: .031 in.

Cum JT-6-BInlet: .015 in.

Exhaust: .025 in.

Cum N-seriesInlet: .014 in.

Exhaust: .027 in.

Cum H-seriesInlet: .014 in.

Exhaust: .022 in.

(Cummins specs. are with oil temperature @ 140 deg.)

Seat Angle

White 490-A, H-S 590...

Inlet & Exhaust: 45 deg

H-S 6156, 6182....Inlet: 30 deg

Exhaust: 45 deg

Cummins engines...

Inlet & Exhaust: 30 deg

Face Angle

H-S 590Inlet: 45 $\frac{1}{4}$ deg

Exhaust: 45 deg

H-S 6156, 6182...Inlet: 30 deg

Exhaust: 44 $\frac{1}{2}$ -44 $\frac{3}{4}$ deg

Cummins engines...

Inlet & Exhaust: 30 deg

TORQUE

Cylinder Head Bolt

White 490-A105-110 lb-ft

H-S 590...

$\frac{5}{8}$ -18 thread: 140-160 lb-ft

7/16-20 thread: 30- 40 lb-ft

Cum JT-6-B...

11/16 in.: 240-250 lb-ft

$\frac{3}{4}$ in.: 380-400 lb-ft

Other Cum430-450 lb-ft

VALVE SPRINGS

Free Length

White 490-A 2.531 in.

Cum JT-6-B 2.539 in.

Other Cum engines... 3.313 in.

Pressure

White 490-A...

177-187 lb @ 1.612 in.

H-S 590...

Inner: 80 lb @ 1 $\frac{3}{4}$ in.

Outer: 144 lb @ 1 13/16 in.

H-S 6156, 6182...

Inner: 110 lb @ 1.938 in.

Outer: 143 lb @ 2.000 in.

BATTERY

Amp-Hour Capacity

All models 152

Plates Per Cell

All models 19

SAE Group No.

All models 4

Terminal Grounded

All models Pos

FRONT END

Toe-In

All models $\frac{1}{8}$ in.

Camber

4 x 4 models 0 deg

All others 1 deg

Caster

(Specification is for left. Right should be 2/10- $\frac{1}{2}$ deg higher)

Truck wheelbase

115-150 in. 2.7-3.2 deg

150-200 in. 2.2-2.7 deg

200 in. up 1.7-2.2 deg

4 x 4 models 5 -6 deg

King Pin Slant

WF 5844 T 0 deg

All others 5 deg

CAPACITIES

Crankcase

White 490-A 16 qt

H-S 590 14 qt

Cum JT-6-B 16 qt

Other Cum engines 28 qt

Transmission

Fuller:

4A-86, 4B-86 17 pt

5C-72, 5C-720 26 pt

5A-1120, R-95, R-950.... 32 pt

R-96, R-960 33 pt

Spicer:

8041 & 45, 8241 & 45.... 16 pt

8051 & 55, 8251 & 55.... 24 pt

8125 28 pt

Fuller auxiliaries 13 pt

Spicer auxiliaries 12 pt

Rear Axle

Timken:

F-233 12 pt

QT-300 29 pt

R-100, R-140 30 pt

QT-140 31 pt

R-200 36 pt

U-300 39 pt

R-330 44 pt

R-230 45 pt

U-200 58 pt

Autocar GG 18 pt

Eaton 22501 32 pt

White 89C, 189C 22 pt

White 134C 26 pt

Dual Drive

Freightliner Front: 32 pt

Rear: 32 pt

Timken 3458.... Front: 32 pt

Rear: 32 pt

Timken SQW ... Front: 40 pt

Rear: 40 pt

Timken SLD, SLDD...

Front: 28 pt

Rear: 28 pt

Timken SQD, SQDD...

Front: 22 pt

Rear: 22 pt

Timken SQHD...

Front: 34 pt

Rear: 34 pt

Timken SLHD...

Front: 32 $\frac{1}{2}$ pt

Rear: 32 $\frac{1}{2}$ pt

MODEL NUMBERS

Truck Model, Engine, Transmission and Rear Axle... On all models see data tag above windshield on driver's side of cab.

Dorman DS 1 P
Dealer Stock



17" x 13" x 16 $\frac{1}{2}$ "

14 $\frac{1}{2}$ " x 12 $\frac{3}{4}$ " x 3 $\frac{1}{4}$ "

Dorman *Bright* Plated Fasteners in the famous Dorman Cabinet

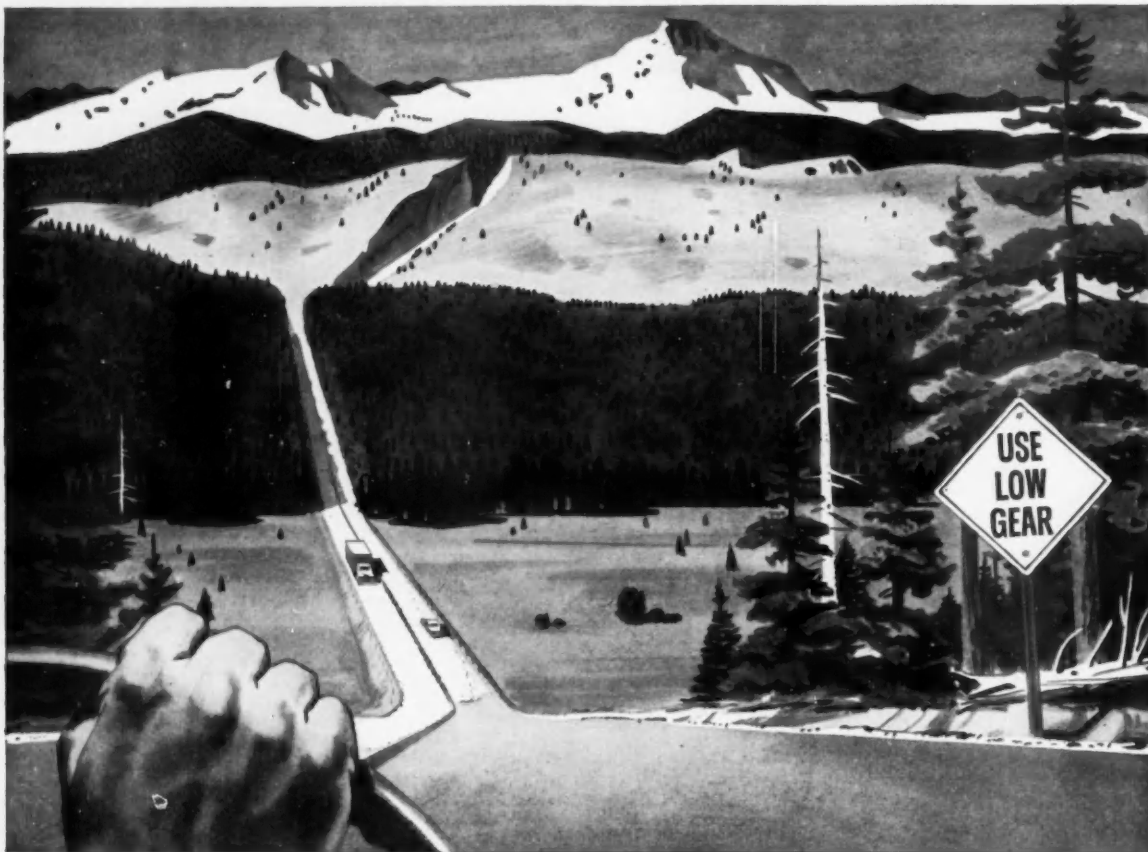
Three thousand four hundred forty six *Bright* plated, daily used Bolts, Nuts, Washers and Cotter Pins conveniently shipped in the Dorman heavy four drawer steel cabinet. Drawers and dividers are clearly marked for quick identification. Dividers are removable and contents can be re-arranged as desired. No. DS 1 P contents ... all *bright* plated and chromate coated ... include all popular sizes:

1040 STEEL USS AND SAE CAP SCREWS	$\frac{1}{4}$ " x $\frac{3}{4}$ " to $\frac{1}{2}$ " x 3"
USS AUTOMOTIVE AND SAE NUTS	$\frac{1}{4}$ " to $\frac{1}{2}$ "
LOCK AND SAE WASHERS	$\frac{1}{4}$ " to $\frac{1}{2}$ "
STOVE BOLTS AND NUTS	$\frac{3}{16}$ " x $\frac{1}{4}$ " to $\frac{1}{2}$ " x 1 $\frac{1}{2}$ "
COTTER PINS	$\frac{1}{16}$ " x 1" to $\frac{3}{32}$ " x 2"

The Quality Line That's Easy to Find



DORMAN PRODUCTS INC. • CINCINNATI 27, OHIO • LOS ANGELES • NEW YORK • TORONTO



One driver out of five will have an extra margin of safety on this grade



Small load or BIG load,
you stop SAFER with

American Brakeblok®
SPECIFY IT!



Bonded Brake Shoe Exchange Riveted Lining Heavy Duty Lining

One fifth of America's trucks and buses use American Brakeblok lining. That's 17% more than the next leading brand.

Because these linings have been frictioneered to maintain an unyielding peak friction value right down to the last bit of thickness, they provide that extra margin of safety that saves lives, rigs and cargoes.

American Brakeblok brake linings and thick blocks are solid and noncompressible. Stand up to heat. Shrug off glaze and fade. And provide maximum stopping power!

Insist on American Brakeblok linings for your equipment. Bring your safety up to date with 1959 stopping power by American Brakeblok.

AMERICA'S SAFETY BRAKE LINING



AMERICAN BRAKEBLOK DIVISION • Executive Offices, P. O. Box 21, Birmingham, Mich.
Plants in Winchester, Va. • Cleveland, Ohio • Hillburn, N.Y. • Lindsay, Ont. • Mexico City, Mexico • Gif, France



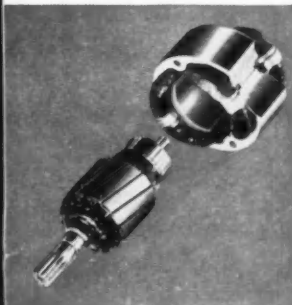


Cut down-time...get 60% faster material removal!

Improved Black & Decker 7" Sander-Grinder is **POWER-BUILT** to work harder, longer, faster!

Shop tests show improved B&D 7" Heavy-Duty Sander-Grinder maintains greater speed under maximum load for 60% faster material removal. B&D Sander-Grinder runs cooler, allowing longer continuous operation. Speeds up body sanding, grinding, cutting, brushing, equally well with proper attachments. Smooths welds, removes rivets, cuts off studs fast.

Perfect overall balance and light weight assure less operator fatigue. Blower directs hot exhaust air away from operator. Comes complete with regular backing pad and Kool-flex pads. Call your distributor today for a free demonstration. Or write for free catalog to: THE BLACK & DECKER MFG. Co., Dept. 5404, Towson 4, Md. (In Canada: Brockville, Ontario.)



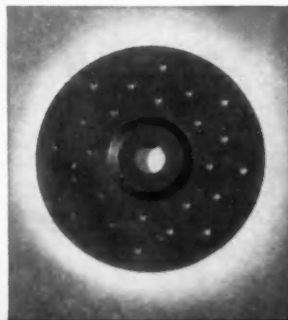
EXCLUSIVE POWER OUTPUT! Specially-built B&D universal motor guarantees continuous power, 90% more than previous models.

EXCLUSIVE LONG - LIFE BRUSHES! New "twin-contact" brush design improves overall tool operation. Increases brush life by at least 50%.



EXCLUSIVE MOTOR PROTECTION! New Thermalize wiring (for motor winding) minimizes problem of overloading, protects motor from overheating, stalling.

EXCLUSIVE KOOL-FLEX PAD! Perforated to make sanding discs run cooler. Less chance of burning material. Gives tool better balance.



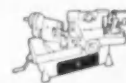
Leading Distributors Everywhere Sell
Black & Decker®
Portable Electric Tools—**Power-Built to Last**



DRILLS



VACUUM CLEANERS



VALVE REFACERS



POLISHERS



CHECK YOUR TUNE-UP

FORD

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
223 Six	223	6	3 ⁵ / ₈ x 3 39/64
292 MD & HD	292	V-8	3 ³ / ₄ x 3 5/16
302 HD	302	V-8	3 ⁵ / ₈ x 3 21/32
332 HD	332	V-8	3 51/64 x 3 21/32
401 SD	401	V-8	4 ¹ / ₈ x 3 ³ / ₄
477 SD	477	V-8	4 ¹ / ₂ x 3 ³ / ₄
534 SD	534	V-8	4 ¹ / ₂ x 4 13/64

Oil Pressure

(At 2000 rpm, engine Hot)

223, 292 MD & HD...	35-50 psi
302, 332	45-55 psi
All others	35-65 psi

Compression Pressure

(At cranking speed)

223, 292, 302	140-160 psi
332	130-150 psi
401, 477, 534	130-170 psi

IGNITION

Cam Angle (Dwell)

Engine

223 Six	35-38 deg
V-8 engines	26-28 ¹ / ₂ deg

Breaker Point Gap

Engine

223 Six .....	.024-.026 in.
V-8 engines .....	.014-.016 in.

Spark Occurs

(Degrees Before Top Center)

All engines	4 deg
-------------------	-------

SPARK PLUGS

Make & Type

Engine

223 Six	CH 870
292 MD & HD	CH 860
All others	CH F-10

Size

All engines 18 mm

Gap

All engines028-.032 in.

Torque

All engines 15-20 lb-ft

VALVES

Operating Tappet Clearance

(Hot unless noted)

223 Six...	Intake & Exhaust: .019 in.
292 MD & HD...	Intake & Exhaust: .018 in.
All others...	Intake & Exhaust: .020 in.

Seat Angle

All engines...
Intake & Exhaust: 45 deg

Face Angle

223 Six, All HD's..... 45 deg

TORQUE

Cylinder Head Bolts

(Oiled threads)

223, 292	65- 75 lb-ft
332, 352	80- 90 lb-ft
430	95-100 lb-ft

Manifold Bolt

All engines...

Intake & Exhaust: 23-28 lb-ft

VALVE SPRINGS

Pressure—Valve Open

223, 292, All HD's...

161-177 lb @ 1.39 in.

SD engines....

178-192 lb @ 1.28 in.

Pressure—Valve Closed

Engine

223, 292, All HD's...

71-79 lb @ 1.78 in.

SD engines....84-89 lb @ 1.70 in.

BATTERY

Amp-Hour Capacity

Truck Model

F-100 thru F-700.....	55
F-750 thru F-1100.....	70
C-550 thru C-700.....	55
C-750 thru C-1100.....	70
T-700	55
T-750 thru T-950.....	70
B series	70
P series	55

Number of Plates

Truck Model

F-100 thru F-700.....	66
F-750 thru F-1100.....	78
C-550 thru C-700.....	66
C-750 thru C-1100.....	78
T-700	66
T-750 thru T-950.....	78
B series	78
P series	66

Terminal Grounded

All trucksNeg

FRONT END

Toe-In

All trucks (Maximum) 1/16 in.

Camber

All trucks 1 deg
Max. var. between wheels: ¹/₄ deg

Caster

Truck Model

F-100, F-250, C-550,	
C-600, P-500 (137	
in. wlbse)	3 deg
Power steering:	6 deg

F-350, F-550 (130 in. wlbse)	3¾ deg
Power steering:	6¾ deg
P-350	4 deg
P-400	3 deg
Power steering:	6¾ deg
B-500, B-600, F-500, F-600 (154 in. wlbse)	4½ deg
Power steering:	7½ deg
P-500 (154 in. wh. base)	3½ deg
Power steering:	6½ deg
F-1000, F-1100, T-950 (with 9,000, 11,000 & 15,000 lb frt axle)	3¼ deg
T-800, T-850 (with 15,000 lb front axle)	3¼ deg
All others	3 deg

King Pin Slant

Truck Model

F-100 thru F-600	4 deg
F-100, F-250 (4 whl. dr.)	7½ deg
P-350 thru P-500	4 deg
C-800, C-1100, F-1000, F-1100, T-800, T-850, T-950 (with 15,000 lb front axle)	8 deg
All others	5½ deg

CAPACITIES

Crankcase

Engine

(Add 1 qt with filter change)

223 Six, 292 MD V-8.....	5 qt
292 HD V-8	6 qt
302 HD V-8, 332 HD V-8..	8 qt
(Add 2 qt with filter change on the following engines)	
401-, 477-, 534 SD V-8....	9 qt

Transmission

Ford 3-speed	3 pt
W/extension hshg.:	3½ pt
War O'dr 3-speed	3½ pt
War M.D. 3-speed.....	3½ pt
War H.D. 3-speed.....	5½ pt
War 4-speed	8 pt
Clark & N.P. 5-speed ..	9 pt
Clark H.D. 5-speed	11½ pt
Spicer 5-speed	13-17 pt
Spicer 3-speed Aux....	4-8 pt
Fuller 8-speed	17 pt
Fordomatic	20 pt
Cruise-O-matic	20 pt
Transmatic drive	38 pt

Rear Axle

Ford 3300	6¼ pt
Spicer 44-4F (4 whl. dr.)	5 pt

Spicer 60	6 pt
Timken B-100	8 pt
Timken C-100, D-100...	15 pt
Timken F-104, F-106...	15 pt
Timken U-200	38 pt
Timken U-300 (2-spd.)..	39 pt

Eaton Axles:

Single-Speed

1614, 1615	17 pt
1790-A, 1791-A	22 pt
1892, 1893	21 pt
1911	24 pt

Two-Speed

1350, 13600	13 pt
16600, 16601	20 pt
17800, 17801	19 pt
18802, 18803	22 pt
19503	24 pt

Tandems—Each Axle

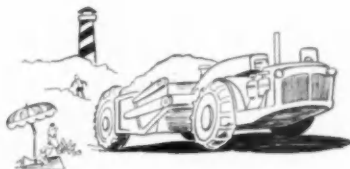
22M.....Forward & Rear:	10 pt
Power Divider:	7 pt
28M.....Forward & Rear:	17 pt
Power Divider:	9 pt
34M.....Forward & Rear:	23 pt
Power Divider:	3 pt
38D .....Forward & Rear:	24 pt

Cooling Systems

Truck Model

(Add 1 qt with heater)

F-100—F-600 (6 cyl)...	17½ qt
F-100—F-350 (V-8 engine and single rear wheels)	21½ qt
F-350 (dual rear whls)	22 qt
F-500, F-600 (V-8 engine)	22 qt
P-350—P-500 (6 cyl)...	18½ qt
P-350 (V-8 engine) ...	22 qt
T-700 (302 V-8 engine)	26 qt
B-700, F-700, T-700...	23 qt
B-750, F-750, T-750...	26 qt
F-800, T-800	26 qt
B-500, B-600 (6 cyl)...	17½ qt
With V-8 engine:	22 qt
C-750, C-800	29 qt
C-550, C-600, C-700....	28 qt



"He's the richest kid in Ocean Beach!"

T-950 (534 S.D. V-8)...	47 qt
F-850—F-1000	46 qt
T-850, T-950	46 qt
F-1100	47 qt
C-850—C-1000	51 qt
C-1100	52 qt

LUBRICATION

Crankcase

All engines...Above 100 deg use SAE 40. From 32 deg to 100 deg use SAE 30. From 10 to 32 deg use SAE 20-20W. From 10 to -10 deg use SAE 10W. Below -10 deg use SAE 5W.

Transmission

Fordomatic, Cruise-O-matic, Transmatic...Type A automatic transmission fluid.

Conventional, Overdrive and Auxiliary transmissions....SAE 90 straight mineral oil gear lubricant.

Rear Axle

F-250 thru F-750, T-700, C-550 thru C-750, B-500 thru B-750 P-350 thru P-500...Use multipurpose lubricant; Above 100 deg use SAE 140, from -10 to 100 deg use SAE 90, below -10 deg use SAE 80.

All others...Use hypoid gear lubricant; Above -20 deg use SAE 90.

2-speed rear axle shift unit...Use engine oil; Above 0 deg SAE 10W, below 0 deg 3 parts SAE 10W to 1 part kerosene.

MODEL NUMBERS

Engine model...Given as part of truck serial number on rating plate. The plate is on the right hand dash panel on P-series trucks, on the left door post on all others. The serial number's first three symbols give the truck model number, then a letter shows the engine model. The symbols and their meaning are: C—292 MD, D—292 HD, F—332, J—223, N—302, P—401, Q—477, R—534.

Transmission model...plate on left side of transmission.

Rear Axle—Code number given on truck rating plate — See above.

B.F. Goodrich

Your truck tire know-how can help you win a THUNDERBIRD or CORVETTE



CONTEST HINT: This has been called "The 100,000-mile" tire. The user of these Traction Express tires (size 10.00-20), a large freight operator, drove these all-nylon tires ten hours a day for five days a week in all kinds of weather, on all types of roads.



CONTEST HINT: This is the original equipment tire on many new trucks. These Power Express Tubeless tires (size 8-19.5) travel almost 100 miles per day making stop-and-go deliveries. This tire wear continues six days a week, summer and winter.

Guess the combined mileage of these B.F. Goodrich truck tires

GUESS the combined mileage on the two B.F. Goodrich truck tires pictured here and you can win one of 311 prizes. There's nothing to write, nothing to buy. Anyone who owns a truck or is employed in a transportation activity in a company operating trucks is eligible.

Simply add your estimate of the mileage on the Traction Express tire on the left to the estimated mileage on the Power Express Tubeless tire on the right for your entry. The closest estimate to the nearest tenth of a mile wins.

Call or visit your B.F. Goodrich Smileage dealer for entry blanks and complete details. He's listed under Tires in the Yellow Pages of your phone book. *B.F. Goodrich Tire Company, A Division of The B.F. Goodrich Company, Akron 18, Ohio.*

YOU CAN WIN . . .

First Prize—YOUR CHOICE OF A 1959 THUNDERBIRD OR CORVETTE • 2nd Through 11th Prizes—MOTOROLA PORTABLE TELEVISION SETS • 12th Through 61st Prizes—MOTOROLA TRANSISTOR RADIOS • 62nd Through 161st Prizes—WATCH CUFF LINK SETS • 162nd Through 311th Prizes—CIGARETTE LIGHTERS.

B.F. Goodrich



Specify B.F. Goodrich Tubeless or tube-type tires when ordering new trucks or trailers.

B.F. Goodrich *truck tires*

Smileage!

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Here's the way things are rolling...



Among people who know filters...

FRAM RANKS FIRST!

Drivers choose FRAM for quality! U. S. survey shows: Among drivers who know filters by name . . . more rank FRAM first for quality than any other filter!

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FRAM CORPORATION, Providence 16, R. I.



CHECK YOUR TUNE-UP

FWD

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke	
IHC BD-240	240	6	3 9/16 x 4 1/64	
IHC BD-282	282	6	3 13/16 x 4 1/8	
IHC BD-308	308	6	3 13/16 x 4 1/2	
IHC RD-372	372	6	4 3/8 x 4 1/8	
IHC RD-406	406	6	4 3/8 x 4 1/2	
IHC RD-450	450	6	4 3/8 x 5	
IHC RD-501	501	6	4 1/2 x 5 1/4	
Wau 145 GK	779	6	5 1/4 x 6	
Wau 145 GKB	779	6	5 1/4 x 6	
Diesels				
GMC 3-71	213	3	4 1/4 x 5	
GMC 4-71	284	4	4 1/4 x 5	
GMC 6-71	426	6	4 1/4 x 5	
Cum JT-6-B	401	6	4 1/8 x 5	
Cum HR-6-B	743	6	5 1/8 x 6	
Cum HRF-6-B	743	6	5 1/8 x 6	
Cum NH-6-B	743	6	5 1/8 x 6	

Oil Pressure

Engine

IHC BD-240 thru RD-406....
40-45 psi @ 1200 rpm

IHC RD-450, RD-501....
40-45 psi @ 1500 rpm
Wau 145 CK...40 psi @ 2000 rpm
Wau 145 GKB...40 psi @ 2400 rpm



"I'm glad to see you're now testing your thermostats!"

GMC engines...25 psi Minimum
Cummins engines....
30-50 psi @ Gov. speed

Compression Pressure

Wau engines 115 psi
GMC engines 325-400 psi

IGNITION

Cam Angle

All gasoline engines 31-37 deg

Breaker Point Gap

IHC engines018—.024 in.
Wau engines018 in.

Spark Occurs

(Degrees Before Top Center)

IHC BD-240 4 deg
IHC BD-282, BD-308.... 6 deg
Other IHC engines.... 5 deg
Wau engines TC

SPARK PLUGS

Make & Type

IHC BD-2 engines....
CH J-8, AC 43 Com or AL A5
IHC RD engines....
CH J-6, AC 43 Com or AL A5
Wau engines CH J-9

Size

All IHC engines 14 mm
Wau engines 18 mm

Gap

All IHC engines.. .028-.033 in.
Wau engines025 in.

Torque

All engines 28-30 lb-ft

BATTERY

Amp-Hour Capacity

Models with....
IHC BD-engines 70
IHC RD-engines 90
Wau engines (2 batteries). 140
Diesel engines 150

Plates Per Cell

Models with....
IHC engines 13
Wau engines 21
Diesel engines 19

COMMERCIAL CAR JOURNAL, April, 1959

SAE Group No.

Models with....

IHC BD-engines....HO-12-70 or
12H-65R.

IHC RD-engines...HDD-5, SH-90

Wau engines...HDD 4 or HH-150R

GMC engines4D-153

Cum enginesRD-153

Terminal Grounded

All models Pos

FRONT END**Toe-In**

All models 0-1/8 in.

Caster

All models 2 deg

Camber

All models 1 deg

King Pin Slant

All models 8 deg

VALVES**Operating Tappet Clearance**IHC engines...Inlet & Exhaust:
.024-.026 in.Wau 145GK...Inlet: .012-.014 in.
Exhaust: .023-.025 in.Wau 145GKB...Inlet: .012-.014 in.
Exhaust: .029-.030 in.**Seat Angle**IHC BD-240, RD-501....
Inlet & Exhaust: 30 degOther IHC engines....
Inlet & Exhaust: 15 degWau engines....
Inlet & Exhaust: 30 deg**Face Angle**IHC BD-240....
Inlet & Exhaust: 30 degOther gasoline engines....
Inlet & Exhaust: 45 deg**TORQUE****Manifold Bolt**All IHC engines.... 25-30 lb-ft
Wau engines 30 lb-ft**Head Bolt**

IHC BD-240.....85-95 lb-ft

IHC BD-282, BD-308...75-85 lb-ft

Other IHC engines...100-110 lb-ft

GMC engines.....165-175 lb-ft

VALVE SPRINGS**Free Length****Engine**

IHC BD-240 2 11/16 in.

IHC BD-282, BD-308. 2 3/16 in.

IHC RD-372, RD-406, RD-450....

Inner: 2 11/32 in.

Outer: 2 9/16 in.

IHC RD-501...Inner: 2 3/4 in.

Outer: 2 13/16 in.

Wau engines...Inner: 3 3/32 in.

Outer: 3 7/16 in.

Pressure**At Open Length****Engine**

IHC BD-240....

149-158 lb @ 1 11/16 in.

IHC BD-282, BD-308....

186-196 lb @ 1 15/32 in.

IHC RD-372, RD-406, RD-450....

Inner: 83-88 lb @ 1.503 in.

Outer: 133-141 lb @ 1.706 in.

IHC RD-501....

Inner: 82-88 lb @ 1.75 in.

Outer: 160-170 lb @ 1.75 in.

Wau 145GK....

Inner: 75-87 lb @ 2 1/16 in.

Outer: 109-127 lb @ 2 3/8 in.

Wau 145GKB....

Inner: 75-87 lb @ 2 1/16 in.

Outer: 109-127 lb @ 2 1/16 in.

GMC engines... ..

84 1/2-89 1/2 lb valve open

CAPACITIES**Crankcase**

IHC BD-series 7 qt

IHC RD-series 9 qt

Wau engines 18 qt

GMC 3-71 18 qt

GMC 4-71 21 qt

GMC 6-71 25 qt

Cum JT-6-B 16 qt

Other Cum engines 28 qt

Transmission

F51C 12 pt

2B-5A1120 29 pt

2B-5A43 16 pt

2B-10A1120 32 pt

2B-R46 17 pt

2B-5A62, 5C62, 5C72.... 24 pt

2B-10CA65 31 pt

2B-R96 33 pt

35 (incl. transfer case).. 40 pt

Auxiliaries

271, 272, 371, 372 8 pt

273, 373 10 pt

Rear Axle

13B 6 pt

13C 9 pt

23, 33, 33A 16 pt

53 24 pt

Cooling System**Truck Model**

Blue Ox, 140, 140COE,

U-150 26 qt

181, 181COE 28 qt

182, 182COE, 202,

202COE 30 qt

232, 232COE, 6-222,

6-282 30 qt

284, 284COE, M284,

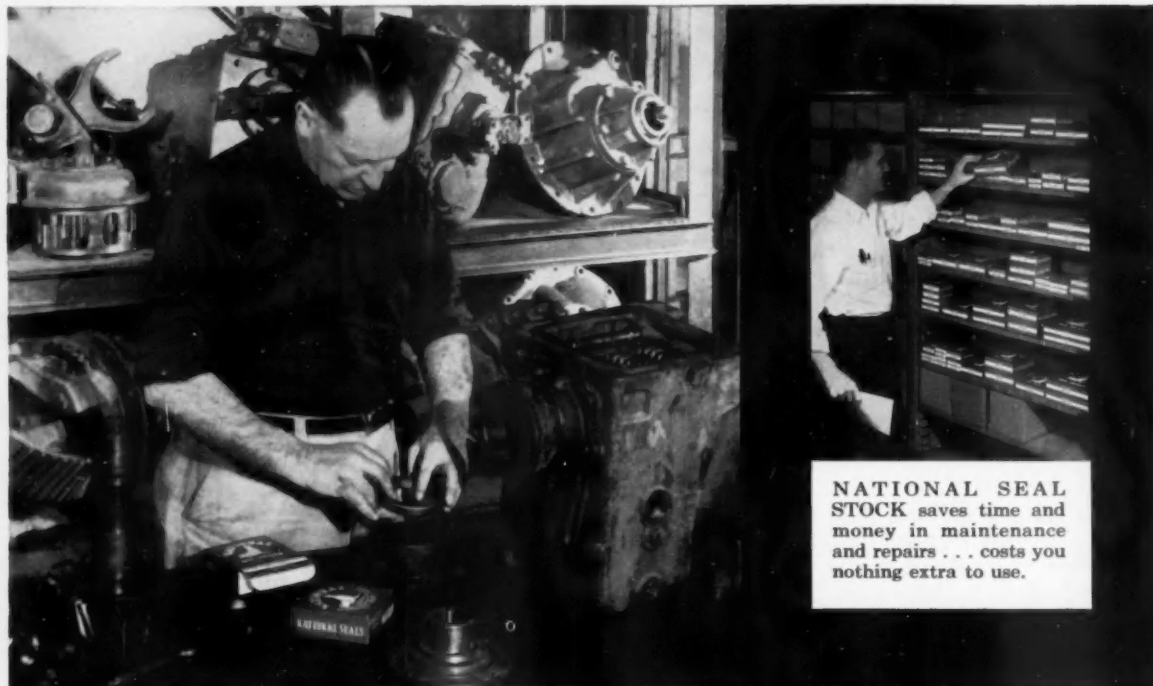
6-324 31 qt

A-329, 408, 408COE,

409, 409COE, 6-609.. 53 qt

LUBRICATION**Crankcase**All gasoline engines...Use heavy
Duty engine oil (MIL-L-2104-
A). Above 70 deg use SAE 40.
From 50 to 70 deg use SAE 30
for light duty, SAE 40 for
heavy duty. From 30 to 50
deg use SAE 20/20W for light
duty, SAE 30 for heavy duty.
Below 30 deg use SAE 20W.GMC diesels...For general service
use SAE 30 engine oil. From
0 to 30 deg in continued cold
use SAE 20W. Below 0 deg
use SAE 10W.Cummins diesels...Above 80 deg
use SAE 30 straight engine
oil. From 20 to 80 deg use
SAE 20 straight engine oil.
Below 20 deg use SAE 10W
straight engine oil.**Transmission**All models...Use straight min-
eral oil (FWD Spec. No. T-
46-1); Summer: SAE 140;
Winter: SAE 90.**Rear Axle**All models...Multi-purpose lube
(MIL-L-2105); Summer: SAE
90; Winter: SAE 80.**MODEL NUMBERS**Truck Model...See plate on left
cab door.Engine...Waukesha — plate on
right of block near front. All
others—plate on head near
left front.

Better products, faster, from your National Seal jobber:



Save...replace all oil seals with National at each preventive-maintenance inspection!



You slash costly vehicle downtime . . . save on labor with rigid overhaul standards, new National seals *every time*

America's biggest fleets replace all oil seals in an assembly during routine inspection and rebuild! They've found that time and labor to remove, repair and replace a malfunctioned assembly costs far more than rigid preventive maintenance—including new National seals. Here's how to profit from their experience:

Install a National Service Stock. First, your National Seal jobber surveys your needs, recommends a basic stock for you to buy. Then he inventories it periodically, tells you what you require and how to modify the stock to your changing needs. Replacements are always on hand to use *whenever* a seal is removed.

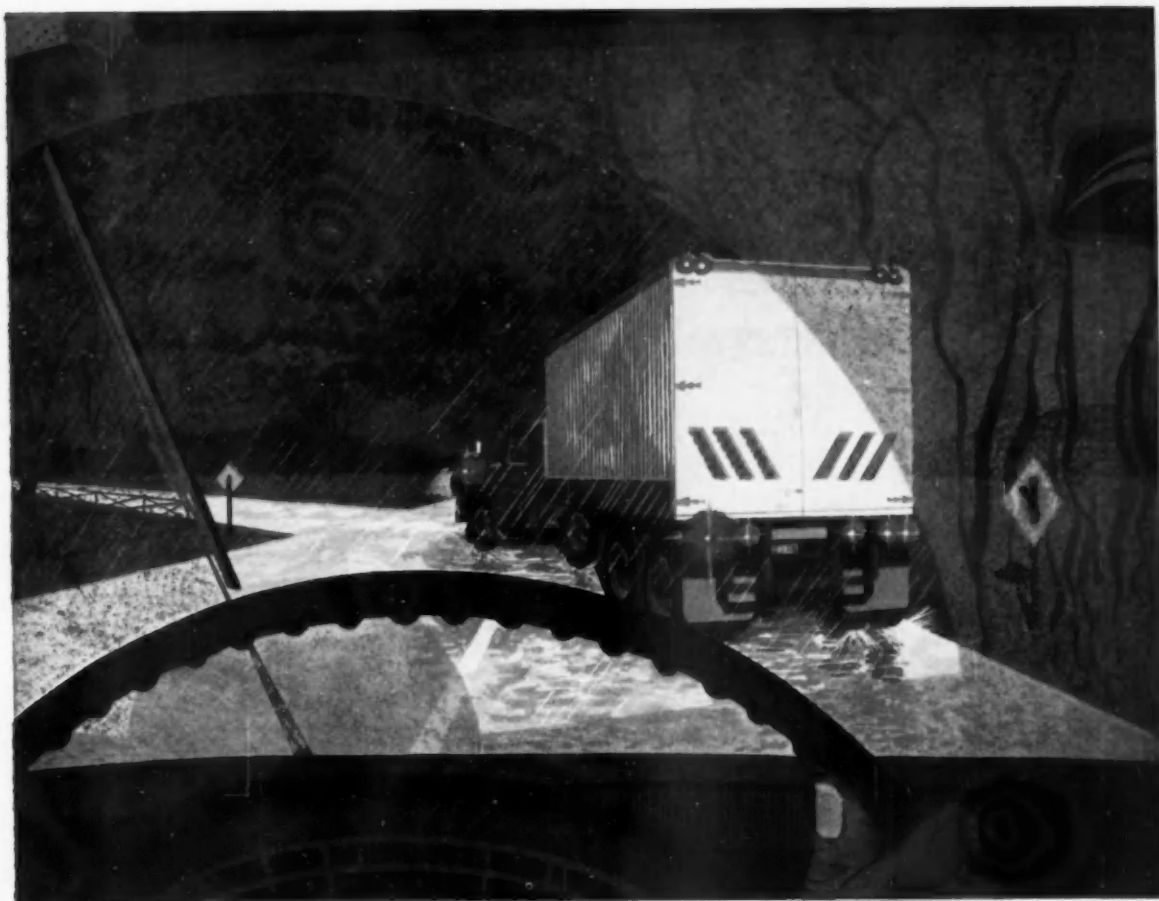
Equipment dependability means money in your pocket, so rely on National Oil Seals—in leather or synthetic—to keep lubricant safely in its place. Call your National Seal jobber today!

NATIONAL OIL SEALS

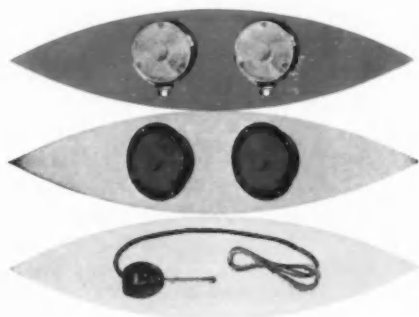
FEDERAL-MOGUL SERVICE

DIVISION OF FEDERAL-MOGUL-BOWER BEARINGS, INC. • DETROIT 13, MICHIGAN





Guide's High Visibility Reflectors and Turn Signals mean all-weather safety for your truck fleet !



Turn signal set has four lamps, self-cancelling switch...choice of bracket or flush mounting for rear lamps

Most often, trucks can't stop for bad weather. They must be on the road in rain, snow and sleet. It is in such weather, when visibility is low, that the danger of rear-end collisions rises sharply. And there's not much that even your best driver can do to avoid this hazard, if his truck is not clearly visible from the rear. Guide's high-visibility reflectors and turn signals can help prevent needless and costly delays. Because of their dependability and uniformly high quality, Guide reflectors and signals are specified as standard equipment by many leading vehicle manufacturers. Available at United Motors Service outlets and most truck dealers.

Guide Lamp ... BRIGHTEST NAME IN LIGHTS



GUIDE LAMP DIVISION • GENERAL MOTORS CORPORATION • ANDERSON, INDIANA



CHECK YOUR TUNE-UP

GMC

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)	
270	269.5	6	3 25/32	x 4
302	301.6	6	4	x 4
336	336.9	8	3 25/32	x 4
370	370.7	8	4	x 3 11/16
503	502.7	6	4 9/16	x 5 1/8
Diesels				
4-71	283.7	4	4 1/4	x 5
6-71SE	425.6	6	4 1/4	x 5
6-71T	425.6	6	4 1/4	x 5

Oil Pressure

Engine

370...5 psi, minimum @ idling speed.

All other gasoline engines...35-40 psi @ 1000 rpm.

All diesels...25 psi, minimum @ idling speed.

Compression Pressure

Engine

270...140 psi @ 125 rpm

503...115 psi @ 125 rpm

All other gasoline engines...125 psi @ 125 rpm

IGNITION

Cam Angle

Engine

270, 302 28-35 deg

336, 370 30 deg

503 31 deg

Breaker Point Gap

503018-.024 in.

All others016 in.

Spark Occurs

(Degrees Before Top Center)

Engine

270, 302 5 deg

336 6 deg

370	TC @ 400 rpm
503	6 deg @ 450 rpm

SPARK PLUGS

Make & Type

Engine

270, 302, 336, 503...

AC 44 Com

336 H.D. AC 45

370 AC C-43 Com

Size

All models 14 mm

Gap

336 H.D.035 in.

All others030 in.

Torque

Engine

270, 302 15-20 lb-ft

All others 23-27 lb-ft

VALVES

Operating Tappet Clearance

270, 302 Inlet: .012 in.

Exhaust: .020 in.

503 Inlet: .012 in.

Exhaust: .018 in.

336, 370 Zero

Seat Angle

Engine

270 Inlet: 30 deg

Exhaust: 30 deg

302, 336, 503.... Inlet: 30 deg

Exhaust: 45 deg

370 Inlet: 45 deg

Exhaust: 45 deg

4-71, 6-71 30 deg

Face Angle

Engine

270 Inlet: 30 deg

Exhaust: 30 deg

302, 503 Inlet: 30 deg

Exhaust: 45 deg

336 Inlet: 29 deg

Exhaust: 44 deg

370 Inlet: 45 deg

Exhaust: 45 deg

TORQUE

Manifold Bolt

Engine

270, 302 25-30 lb-ft

336 45 lb-ft

370 Inlet: 25-30 lb-ft

Exhaust: 22-26 lb-ft

503 70-75 lb-ft

Head Bolt

Engine

270, 302 90-100 lb-ft

336 90-95 lb-ft

370 65-70 lb-ft

503 75-80 lb-ft

4-71, 6-71 165-175 lb-ft

VALVE SPRINGS

Free Length

Engine

270, 302 2 1/8 in.

336 Inner: 1 11/16 in.

Outer: 2 in.

Pressure

Engine

270, 302...124-140 lb compressed to 1.505 in.

336...Inner: 94-100 lb compressed to 1.065 in.; Outer: 117-127 lb compressed to 1.146 in.

370...183-197 lb compressed to 1.480 in.

503...Inner: 17-23 lb compressed to 1.625 in.; Outer: 45-53 lb compressed to 1.875 in.

BATTERY

Amp-Hour Capacity

Truck Model

100-500 series:	
SFM 460	205
Other S-models	72
Others with 6-cyl.	53
Others with 8-cyl.	60
550-970 series:	
Diesel R-models	150
Other Diesels	205
All gasoline models	72

Plates Per Cell

Truck Model

100-500 series:	
SFM 460	27
Other S-models	11
Rest of series	9
550-970 series:	
Diesel R-models	19
Other Diesels	27
All gasoline models	11

SAE Group

Truck Model

100-500 series:	
SFM 460	8DR 205
Other S-models ..	3SMR 72
Others with 6-cyl	2SMR 53
Others with 8-cyl	558
550-970 series:	
Diesel R-models....	4DR150
Other Diesels	8DR205
All gasoline engines...	3SMR 72

Terminal Grounded

All models	Neg
------------------	-----

FRONT END

Toe-In

Truck Model

100, 100-8	1/16-3/16 in.
150 thru 370	1/16-1/4 in.
450, 500	1/16-3/16 in.
All others	1/8 -1/4 in.

Camber

Models 100 thru 370..	1 1/2 deg
All others	1 deg

Caster

F-models, 630 & up	2 1/2 deg
All others	1/2-1 1/2 deg

CAPACITIES

Crankcase

270	8 qt
with filter:	9 1/2 qt
302	8 qt
with filter:	10 1/2 qt
336, 370	5 qt
with filter:	6 qt
503 (incl. filter)	12 qt
4-71	20 qt
6-71	22 qt

Transmission

GMC SM318	1 1/2 pt
GMC SM319	2 3/4 pt
Warner T89B	2 3/4 pt
GMC SM420	6 pt
New Process 540, 541.	10 pt
Spicer 6852, 6853	17 pt
Fuller R46	17 pt
Fuller R96	36 pt

Auxiliaries

Spicer 5831	4 pt
Spicer 6041	8 pt
Spicer 8341	12 pt

Hydra-Matics

177CA, 210U, 300GH..	18 pt
177CA (with 8-cyl)...	20 pt
210 UC, 300 GHC	19 pt
330 GP	24 pt
350 GN	28 pt
All Torqomatics	22 pt

Rear Axle

GMC HO72	6 1/2 pt
GMC H110	14 pt
GMC H150	19 1/2 pt
Spicer 45	3 1/2 pt
Spicer 60	5 1/2 pt
Timken B100	10 pt

Two-Speed

Eaton 1350	13 pt
Eaton 17800, 17801,	
18803	22 pt
Eaton 19503	24 pt
GMC T150	16 1/2 pt
Timken F341	16 pt
Timken G361, H350 ...	24 pt
Timken H340	22 pt

Single Reduction

Eaton 1790A, 1791A...	22 pt
Eaton 1893	21 pt
Timken H140	20 pt
Timken R140	30 pt
Timken H162	24 pt

Double Reduction

Eaton 8803	22 pt
------------------	-------

Timken RT240	36 pt
Timken U200	38 pt

Tandems

Eaton 22M...	
Front & Rear:	12 pt
Eaton 28M...	
Front & Rear:	17 pt
Eaton 34M Front:	28 pt
Rear:	31 pt

Timken (capacity of each axle)

SFDD, SLDD	28 pt
SQDD	22 pt

Note: On above models add 2 pt at differential lock.

SW456, SW3020	28 pt
---------------------	-------

Torque Dividers

Eaton 22M, 28M	9 pt
Eaton 34M	3 pt

Cooling System

Truck Model

100 thru 250 series...	17 qt
with 8-cyl engine:	25 qt
PM150, PM250, P350..	17 qt
300 series	22 qt
350 thru 450 series...	23 qt
with 8-cyl engine:	30 qt
F370 series...	
(with T'matic):	22 qt
F350 & F370 series ...	18 qt
SFM 460	19 1/2 qt
MW550 & FMW 550...	23 qt
W500 series	30 qt
MW500 series	29 qt
550 & 600 series	24 qt
Other gasoline models	29 qt
Diesel models ... 4-cyl:	30 qt
6-cyl:	39 qt
(Note: To above figure add 1 qt with Hydra-Matic, subtract 1 qt with Torqmatic.)	

LUBRICATION

Crankcase

All gasoline engines... Use "DG" type Heavy Duty engine oil for normal operation, "DS" type for severe stop-start operations in cold weather. Above 90 deg use SAE 30; From 32 to 90 deg use SAE 20 or 30; From 80 to 10 deg use SAE 20W; From 60 to -10 deg use SAE 10W; Below 10 deg use SAE 5W.

All diesel engines... Use "DG" type Heavy Duty engine oil for normal operation, "DS" (TURN TO PAGE 116, PLEASE)

GMC

Continued from page 115

type for severe stop-start operations in cold weather. Above 32 deg use SAE 30; Between -10 and 60 deg use SAE 20W; Below 10 deg use SAE 10W.

Transmission

GMC & New Process... Use Multi-

purpose gear lube (MIL-L-2105) summer and winter.

Spicer... Use "DG" type SAE 50 engine oil all year.

Fuller... Use best quality straight gear oil. Summer: SAE 140; Winter: SAE 90.

Hydra-Matic... Use "DG" type engine oil (Mil.-L-2104A). Type A automatic transmission fluid may be used, but do not mix engine oil and Type A fluid.

Torqmatic... Use Type C automatic transmission fluid. In extreme cold use Type A, but do not mix the two types of fluid.

Auxiliary... Use "DG" type SAE 50 engine oil all year.

Rear Axle

Worm type... Use worm gear lubricant. Above 0 deg use SAE 140; Below 0 deg use SAE 90.

Others... Use Multi-Purpose gear lube (MIL-L-2105) all year.

Cut operating and maintenance costs with reliable Stewart-Warner



STEWART-WARNER "NATIONAL" GOVERNOR



Junior and Senior models available for either low or high speed settings.

Prevents abuse of your vehicles due to over-speeding and racing in any gear, guards against wear on transmission, engine parts and brakes. Helps reduce accidents.

- Simple mechanical design... no vacuum attachments required.
- Permits normal engine operation at all speeds below governed speed.
- Not affected by altitude.
- No effect on automatic gear shift.
- Easy to install; trouble-free.

STEWART-WARNER MOTOR MINDER



A precision vacuum gauge which enables you to make important fuel savings by showing range for most economical engine operation. Helps to eliminate "lugging"... prevents excessive repairs by indicating faulty carburetor adjustment or ignition timing... worn or sticky rings... leaks in manifold or head gaskets... defective spark plugs.

See your Stewart-Warner representative or write for complete details

Dept. UU-49, 1840 Diversey Pkwy. Chicago 14, Ill.



INSTRUMENT DIVISION
STEWART-WARNER
CORPORATION

MODEL NUMBERS

Truck Model... On all models see plate on cab left door hinge panel.

Engine Model... Models 270 and 302—on crankcase behind distributor. 336—on right side of block below the manifold. 370—on top left side of block. 503—on left rear corner of crankcase. 4-71—on right rear corner of block. 6-71—on front right of block.

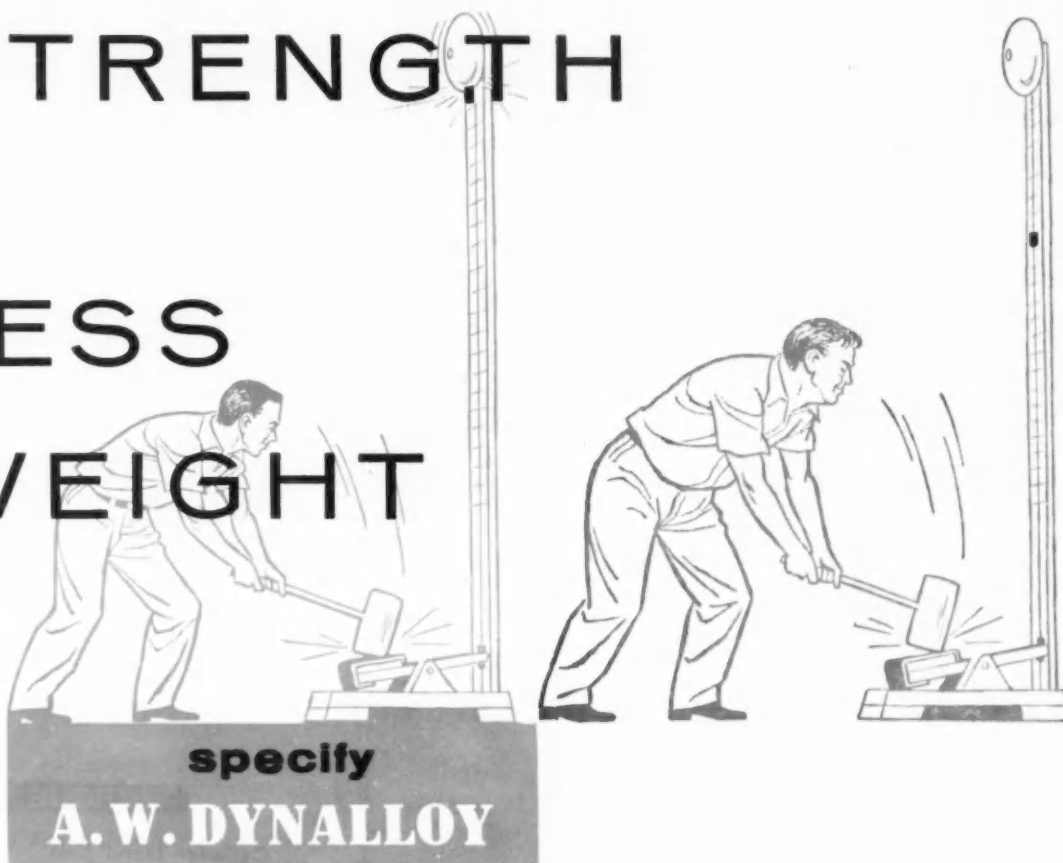
Transmissions and Rear Axles... see plate in dash compartment.



"There are too many helping hands around here—especially when I'm going up stairs!"

MORE STRENGTH

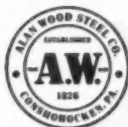
LESS WEIGHT



A. W. DYNALLOY Steel provides higher strength per unit of weight... lets you cut weight in fabricated products.

Specify **DYNALLOY** and realize these additional advantages: weldability, easy formability and resistance to corrosion and impact. In products where high strength and low weight are desirable, **DYNALLOY** will provide you with a means to higher quality production... lower costs... increased profits. Call your Alan Wood Representative today! He's always available and ready to help.

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CHECK YOUR TUNE-UP

INTERNATIONAL

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore and Stroke (in.)
A-55	91	4	27/8 x 3 1/2
BD-220	220	6	3 9/16 x 3 11/16
BD-240	240	6	3 9/16 x 4 1/64
BD-264	264	6	3 11/16 x 4 1/8
BD-282	282	6	3 13/16 x 4 1/8
BD-308	308	6	3 15/16 x 4 1/2
RD-372	372.066	6	4 3/8 x 4 1/8
RD-406	405.891	6	4 3/8 x 4 1/2
RD-450	450.990	6	4 3/8 x 5
RD-501	500.976	6	4 1/2 x 5 1/4
V-401	401	V-8	4 1/8 x 3 3/4
V-461	461	V-8	4 1/8 x 4 5/16
V-549	549	V-8	4 1/2 x 4 5/16
Cum JBS-600	401	6	4 1/8 x 5
Cum JT-600	401	6	4 1/8 x 5
Cum N series	743	6	5 1/8 x 6
Cum H series	743	6	5 1/8 x 6

Oil Pressure

Engine

A-55...15 psi @ idle, 50 psi @ running speed.
 BD-220, BD-240, BD-264...
 30-40 psi @ 1500 rpm
 BD-282, BD-308, RD series...
 35-45 psi @ 1500 rpm
 V-8 engines...50-55 psi @ 1500 rpm

BD-264 2 deg
 BD-282 6 deg
 BD-308 3 deg
 A-55, V-401 5 deg
 V-461, V-549 7 deg

SPARK PLUGS

Make & Type

BD engines...AC 45 Com, CH J-8, or AL A-7
 RD engines...AC 43 Com, CH J-6, or AL A-5

IGNITION

Cam Angle (Dwell)

BD and RD engines...31-37 deg

Breaker Point Gap

Engine

A-55014-.016 in.
 BD enginesNew: .019 in.
 Reset: .016 in.
 RD engines019-.024 in.
 V-8 enginesNew: .016 in.
 Reset: .014 in.

Spark Occurs

(Degrees Before Top Center)

BD-220, BD-240 4 deg



"Seventh—Good Heavens—Street!"

Size

All engines 14 mm

Gap

A-55024-.026 in.
 All 6-cyl engines... .028-.033 in.
 All 8-cyl engines... .025-.030 in.

Torque

All engines 28-30 lb-ft

VALVES

Operating Tappet Clearance

Engine

A-55...Inlet & Exhaust: .015 in.
 BD-220, BD-240, BD-264...
 Inlet & Exhaust: .024-.026 in.
 BD-282, BD-308...
 Inlet & Exhaust: .018-.020 in.
 RD-engines...
 Inlet & Exhaust: .020-.022 in.
 V-8 engines (Hydr. lifters)...Zero

Face Angle

A-55...Inlet & Exhaust: 45 deg
 BD-220, BD-240, BD-264...Inlet and Exhaust: 30 deg
 BD-282, BD-308, RD engines...
 Inlet: 15 deg, Exhaust: 45 deg
 V-8 engines...Inlet and Exhaust: 45 deg

TORQUE

Cylinder Head Bolt

Engine

A-55 45 lb-ft
 BD-282, BD-308...75-85 lb-ft
 Other BD-engines...85-95 lb-ft
 RD Engines100-110 lb-ft
 V-8 engines80-90 lb-ft

VALVE SPRINGS

Free Length

Engine

A-55 2 1/64 in.
 BD-282, BD-308... 2 3/16 in.
 Other BD-engines... 2 11/16 in.
 RD engines...Inner: 2 11/32 in.
 Outer: 2 9/16 in.
 V-8 engines...Inner: 2 9/32 in.
 Outer: 2 19/32 in.

Pressure

(Valve open)

Engine

BD-220, BD-240, BD-264...
 149-158 lb

BD-282, BD-308	128-190 lb
RD engines....Inner:	83- 88 lb
	Outer: 133-141 lb
V-8 engines....Inner:	86- 93 lb
	Outer: 121-129 lb

CAPACITIES

Crankcase

Engine

A-55	4 qt
BD-220, BD-240, BD-265..	5 qt
(4 x 4 models):	7 qt
BD-282, BD-308	7 qt
RD engines	9 qt
V-8 engines	10 qt

Transmission

T1	2½ pt
T2	3½ pt
T5	6 pt
T10	5 pt
T12	5 pt
T15	7 pt
T19, T22	10 pt
T26	20 pt
T30, T31, T40, T41	12 pt
T50, T51	19 pt
T60, T61, T62, T63.....	24 pt
T70, T71, T72, T73.....	26 pt
T75, T76...	
With RD engines:	17 pt
With V-8 engines:	19 pt

Auxiliary Transmission

AT501	10 pt
AT510	6 pt
AT519, AT520	8 pt
AT539	12 pt

Rear Axle

RA-2	2 pt
RA-1, RA-3	3 pt
RA-5, RA-10	4 pt
RA-15, RA-20	5½ pt
RA-25	9½ pt
RA-30, RA-31	8 pt
RA-35, RA-40	11 pt
RA-44...	
First production:	16 pt
Later production:	24 pt
RA-45	22 pt
RA-46, RA-47	31½ pt
RA-50	21 pt
RA-56, RA-57	31 pt
RA-60	23 pt
RA-70	36 pt
RA-120	13 pt
RA-125, RA-130, RA-131	11 pt
RA-135	15½ pt
RA-145	17 pt

RA-146	
First production:	15½ pt
Later production:	22 pt
RA-150	18 pt
RA-151, RA-152	28½ pt
RA-155	24 pt
RA-156, RA-157	29½ pt
RA-160, RA-166, RA-167	29 pt
RA-165	32 pt
RA-170	34 pt
RA-171, RA-172	51½ pt
RA-175	37 pt
RA-240	20 pt
RA-245, RA-250	19 pt
RA-270	36 pt
RA-275	38 pt
RA-301 (tandem).....	
Forward:	11 pt
Rear:	11 pt
RA-305 (tandem).....	
Forward:	14 pt
Rear:	14 pt
RA-310 (tandem).....	
Forward:	28 pt
Rear:	33 pt
RA-318 (tandem).....	
Forward:	27 pt
Rear:	24 pt
RA-315 (tandem).....	
Forward:	28 pt
Rear:	28 pt

Single Reduction Bogies

RA-305 (each axle)....	14 pt
RA-310	
Forward:	23 pt
Rear:	25 pt
RA-315 (each axle)....	28 pt
RA-320	
Forward:	20 pt
Rear:	21 pt
RA-357 (each axle)....	22 pt

Mobile Studio



Radio station WHAM in Rochester, N. Y., recently put their new mobile radio studio on the road to cover civic events and on-the-spot news reports of fires, floods, etc. The unit has a high frequency relay transmitter to permit broadcasting on the move. In addition, turntables are mounted on self-leveling tables so that records can be played even when the truck is parked on uneven ground. The body is a 14-ft Boyertown Merchandiser model with windows all around mounted on a forward control chassis.

Cooling System

Truck Model

AM-80	6½ qt
A-100—A-130, A-120	
(4x4)	15 qt
A-140—A-160, AC-150,	
AC-160	16 qt
A-140 (4x4), A-160	
(4x4)	16 qt
A-170, A-180, AC-170,	
AC-180	19 qt
ACF-170, AC-170 (4x4),	
AC-180 (4x4)	19 qt
A-175, AC-175, ACF-175.	20 qt
ACF-180, AC-1890	20 qt
R-185, R-190, R-210	28 qt
RF-190, RF-210	28 qt
R-200, RF-200	26 qt
R-220, RF-230	30 qt
ACO series	46 qt

LUBRICATION

Crankcase

RD engines...Above 32 deg use SAE 30. Between 10 and 32 deg use SAE 20W. Below 10 deg use SAE 10W.
All other engines...Above 32 deg use SAE 30. Between 10 and 32 deg use SAE 20W. Below 10 deg use SAE 10W.

Transmission

Standard...Above 0 deg use SAE 90 straight mineral oil. Below 0 deg use SAE 80.
Automatic.....Type "A" fluid
Auxiliary...Above 0 deg use SAE 90 straight mineral oil. Below 0 deg use SAE 80.

Rear Axles

All models...Above 40 deg use SAE 140. Below 40 deg use SAE 90.

MODEL NUMBERS

Truck Model...On all models see plate on left side cab door inner panel.

Engine Model...On 6-cyl engines number is stamped on crankcase, right side, upper front. On 8-cyl engines it is on left bank upper front.

Rear Axle...See specification card in vehicle.

Transmission....See specification card in vehicle.



Autocar



BROCKWAY
Huskie



CHEVROLET



DIAMOND T



IVC



DODGE TRUCKS



Ford



EVD

Leece-Neville Alternator-Generator Systems are available as factory-installed special original equipment through these manufacturers.

Specify Leece-Neville Alternator-Generators on your new trucks.



H



KAISER
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REO



4



WALTER
TRUCKS
1-2-3-4
100% TRACTION



White

*you can specify Leece-Neville
Alternator-Generators as factory-installed
special equipment on more than*

90% of all new trucks

One of the most common sources of road failure has always been the electrical system—batteries, generators, regulators. Since 1946, thousands of truckers have discovered a simple way to virtually eliminate this type of failure. They installed Leece-Neville Alternator-Generator systems!



New Standard Type No. A001-2002AA — 60 Amp rating, 19 lbs., built-in Silicon rectifier



New Heavy-Duty Type No. A001-2000AA — 60, 100 and 125 Amp ratings, 32 lbs., built-in Silicon rectifier



THE L-N ALTERNATOR-GENERATOR IS
A COST-CUTTING WORKHORSE!

- ★ Produces enough current with engine idling to carry all electrical loads
- ★ Ample low-speed output . . . safe high-speed output . . . long life
- ★ Permits full use of all accessories at all speeds
- ★ Improves performance and cuts maintenance costs for entire electrical system
- ★ Assures easy starting even in the most severe weather



NEW L-N ALTERNATOR-GENERATOR SYSTEMS PERFORM BETTER, CUT MAINTENANCE COSTS!

Leece-Neville advanced engineering has eliminated the separately-mounted Selenium rectifier in L-N Alternator-Generator Systems! New improved Silicon Cell rectifiers are built-in as a part of the alternator itself.

The result is improved performance, plus all of these cost advantages . . . (1) reduced installation expense, (2) reduced maintenance costs, (3) comparable original cost to previous 3-piece systems, (4) savings in space, (5) greater heat resistance, and (6) longer life.

Also Available: Low-cost conversion kits for converting previous 3-piece systems to new 2-piece systems with built-in Silicon rectifiers.

THE LEECE-NEVILLE COMPANY
CLEVELAND 3, OHIO
DEPT. FC-5

- ☐ Please send literature on L-N Alternator-Generator Systems.
☐ Have your salesman call on me.

Name _____ Title _____

Company _____

Address _____

City _____ State _____



CHECK YOUR TUNE-UP

KENWORTH

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
H-S 590-G	590	6	5 x 5
H-S 590-B	590	6	5 x 5
Cum JT-6-B	401	6	4 1/8 x 5
Cum NHB 600	743	6	5 1/8 x 6
Cum NHBID 600	743	6	5 1/8 x 6
Cum NVH 1200	1148	12	5 1/8 x 6

Oil Pressure

Hall-Scott engines...
60 psi @ 2800 rpm
Cum JT-6-B...30-60 psi @ governed speed.
Other Cummins engines...30-50 psi @ governed speed.

IGNITION

Cam Angle (Dwell)

H-S 590-G & B.... 31-37 deg

Breaker Point Gap

H-S 590-G & B.... .022 in.

Spark Occurs

(Degrees Before Top Center)

H-S 590-G 5 deg
H-S 590-B 10 deg

SPARK PLUGS

Make & Type

H-S engines CH J-5

Size

H-S engines 14 mm

Gap

H-S 590-G025 in.
H-S 590-B015 in.

Torque

H-S 590-G&B 28-32 lb-ft

VALVES

Operating Tappet Clearance

H-S engines (cold)...
Inlet: .016 in.
Exhaust: .019 in.
Cummins engines (with oil temperature @ 140 deg).
JT-6-BInlet: .015 in.
Exhaust: .025 in.
N seriesInlet: .014 in.
Exhaust: .027 in.

Seat Angle

H-S engines 45 deg
Cummins engines 30 deg

Face Angle

H-S engines 45 deg
Cummins engines 30 deg

VALVE SPRINGS

Pressure

(Valve Open)
H-S 590 G & B...
Inner: 80 lb @ 1.750 in.
Outer: 116 lb @ 1.812 in.
Cum JT-6-B...
169-187 lb @ 2.406 in.
Cum N series...
110 lb @ 1.8437 in.
(Valve Closed)
H-S 590 G & B...
Inner: 41 lb @ 2.2500 in.
Outer: 60 lb @ 2.3125 in.

Cum JT-6-B...
81-91 lb @ 2.406 in.
Cum N series...
78 lb @ 2.250 in.

Free Length

H-S 590-G&B...Large: 3 in.
Small: 2 7/8 in.
Cum NH 3 5/16 in.

TORQUE

Cylinder Head Bolt

H-S engines...5/8-18 thread: 140-160 lb-ft; 7/16-20 thread: 30-40 lb-ft
Cum JT-6-B...11/16 thread: 240-250 lb-ft; 3/4 thread: 380-400 lb-ft
N series 430-450 lb-ft

BATTERY

Amp-Hour Capacity

All models 150

Plates Per Cell

All models 23

Terminal Grounded

All models Neg

SAE Group No.

All models 4

FRONT END

Toe-In

Timken axles ... 1/8 in.
Wisc. F-223 1/8- 1/4 in.
Wisc F-3200 3/16-5/16 in.
Wisc F-7900 1/8- 1/4 in.
Wisc. PSW-250 .. 0- 1/8 in.
Kenworth 1-F-1.. 1/4 in.
Kenworth 2-F-1.. 1/8 in.
Kenworth 3&4-F-1 1/8- 1/4 in.
Page & Page
60-FN 1/16- 1/8 in.
Shuler FE-15.... 1/8 in.
Shuler FE-18.... 1/8 in.

Camber

Tim FU-900 0 deg
Other Tim axles.. 1 deg
Wisc F-7900 1 deg
Other Wisc. axles. 0 deg
Kenworth axles ... 1 deg
Page & Page 60-FN 0 deg
Shuler axles 1 deg

Caster

Tim FE-900	3	-4	deg
Other Tim axles..		1½	deg
Wisc F-223		5	deg
Wisc F-3200		6½	deg
Wisc F-7900		1½	deg
Wisc PSW-250		0	deg
Kenworth 1-F-1 ..		0	deg
Kenworth 2-F-1 ..		2-2½	deg
Other Kenw. axles		1½	deg
Page & Page 60-FN		1½-2½	deg
Shuler axles	2	-2½	deg

King Pin Slant

Tim FE-900	5½	deg
Tim FU-900	0	deg
Other Tim axles..	8	deg
Wisc F-7900	8	deg
Other Wisc axles..	0	deg
Kenw. 3&4-F-1 ...	8	deg
All others	0	deg

CAPACITIES

Crankcase

(Without filter)

H-S 590 G & B.....	14	qt
Cum JT-6-B	16	qt
Cum HB	20	qt
Cum NRT-6B	26	qt
Cum NHB-600	28	qt
Cum NHHB	32	qt
Cum VT & NHVBI-1200.	60	qt
w/deep sump:	112	qt

Transmission

Transmission Model No.

Dana (Spicer)		
703, 4652-A	13	pt
6352	17	pt
7851, 7855	26	pt
8031, 8035, 8341, 8345....	12	pt
8041, 8045, 8241, 8245....	16	pt
8051, 8055, 8251, 8255....	24	pt
8125	30	pt
Fuller		
R-63, R-630	28	pt
R-95, R-950	32	pt
R-96, R-960, R-1150	36	pt
2-A-92, 2-B-92	12	pt
5-A-43	16	pt
4-B-86, 4-A-860	17	pt
5-A-1120, 5-F-1220	25	pt
10-A-1120, 10-B-1120	35	pt
10-F-1220	Front: 32	pt
	Rear: 12	pt
Other Fuller models.....	24	pt

Hydraulics

Allison

TC-500 & 600 series.....	40	pt
TCB-500 series	60	pt

TC-900, TG-627 series...	64	pt
TG-600 series	48	pt
TX-500-3 series	154	pt

Twin Disc, 11,500

Model CO.....housing:	14	pt
Converter fluid:	72	pt
Model DF	42	pt
Converter fluid:	72	pt
Rockford 1401-CBS	192	pt

Transfer Cases

Kenworth	8	pt
Rock—Std. T-77	5	pt
Pac. Car 9222-A	16	pt

Rear Axle

H-100	20	pt
L-110	23	pt
Q-100	31	pt
R-100, R-140	30	pt
R-200, R-230 (a)	36	pt
S-200, U-200 (a)	38	pt
QT-300 (a)	29	pt
R-300 (a)	34	pt

R-330 (a)—shallow	35	pt
deep cover:	44	pt

QT-330 (a)	44	pt
S-300 (a), U-300 (a)....	39	pt
Eaton 18803	22	pt
Eaton 22501	32	pt

Tandems

SQW, GSW-QFR2	40	pt
KSW-QFR1	40	pt
SW-3456, GSW-8FR2	24	pt
KSW-8FR1	24	pt
SW-3458	33	pt
SW-456, GSW-458	28	pt
SW-3012	17	pt
SW-3013	23	pt

SLHD & GSW-LHFR2...		
Front:	32½	pt
Rear:	32	pt

SQHD & GSW-QHFR2...		
Front:	34	pt
Rear:	31	pt

SFD-157	9	pt
SLD, SLDD (b), SD-472.	28	pt
SFD-4600, SFDD-4600 (b)	28	pt
SRD, SRDD (b)	22	pt
SQD, SQDD (b)	22	pt
SFD-3020, SFDD-3020 (b)	31	pt
TSD-7, TSDD-7 (b)....	35	pt
1456, SFD-460	29	pt
SD-462	32	pt
1456A	38	pt

(a)—Add 1 pt to pinion bearing cage. (b)—Add 2 pt to inter-axle differential.

Cooling System

(Capacity is for engine with cab model indicated)

H-S 590 (Conv & COE) .	53	qt
(CBE)	55	qt
(CSE)	42	qt
Cum JT-6-B	43	qt
Cum HB	51	qt
Cum HRB	58	qt
Cum HRBB (Convent'l) .	42	qt
(CSE)	43	qt
(843 cab) ..	46	qt
Cum NHB NTB	53	qt
Cum NHBS, NRT	64	qt
Cum HRBS, NTO	52	qt
Cum NHRBS, NHHT ...	58	qt
Cum NHHB (801 cab)...	60	qt
(other cabs)	63	qt
Cum NVHB-12 (2 cores)	156	qt
Cum NRT-6 (2 cores)...	92	qt
Cum NHHB, NHHT (844)	54	qt
(with 843 cab)	52	qt

LUBRICATION

Crankcase

Hall-Scott engines... Above 90 deg use SAE 40; Between 32 and 90 deg use SAE 30; Below 32 deg use SAE 20.

Cummins engines... Above 90 deg use SAE 30; Between 32 and 90 deg use SAE 20; Below 32 deg use SAE 10W.

Use Heavy Duty engine oil.

Transmission

Spicer... Use SAE 50 straight mineral motor oil all year.

Fuller... Use SAE 140 straight mineral gear lubricant in Summer, SAE 90 in Winter.

Hydraulic... Use Type C hydraulic transmission fluid all year.

Rear Axle

Worm Drive.... Use SAE 140 straight mineral gear lube all year.

Hypoid, Spiral-Bevel and Planetary... Use SAE 140 SCL Hypoid gear lube all year.

MODEL NUMBERS

Truck Model... Plate in cab.

Transmission Model... Plate on transmission.

Rear Axle Model... Plate on axle housing bowl.

Even the experts go to school at Champion...

They learn the latest in ignition "know how"



1. Bill Dilday, Service instructor, explains the latest engine testing procedures to a group of Champion field engineers. After extensive classroom briefings, the engineers move to the school's modern service shop. Next step — putting this new Champion "know how" to work solving actual engine problems.
2. Champion's Service School offers "postgraduate" courses in performance testing and analysis to Champion personnel and to special engineering groups. Like many another "college," this Champion facility also conducts "practical" research relating to service problems in the field.



CHAMPION

— to help your fleet

Here's what happens when a typical group of Champion field engineers attends a "postgraduate course" at Champion's Service School



3. Dilday and field engineer Sonny Weinberg (left) try out a specially designed chassis dynamometer that electronically compensates for different vehicle weights, simulates all types of driving and accurately measures gas consumption.



4. Dilday demonstrates a new type of meter to field engineer Bob Dale. This device accurately measures both available and required ignition voltage, checks polarity, regulator settings and point resistance.

18 OF 21 TRUCK MAKERS INSTALL

CHAMPION

SPARK PLUGS

SPARK PLUG COMPANY • TOLEDO 1, OHIO

COMMERCIAL CAR JOURNAL, April, 1959

What's the purpose of a school where the students are all experts and the experts are all students? It's to help *your fleet* get the best possible ignition performance.

Champion field engineers, all ignition experts, are regularly brought up-to-the-minute on the latest technical developments from Champion. In addition, they hold informal "swap sessions," exchanging valuable on-the-job "know how" accumulated in their years of field work. As a result, many a sticky problem solved by one Champion field engineer provides a ready-made solution for solving similar problems in other fleets. These Champion "trouble-shooters" also come up with many new techniques to help Champion users get even better ignition performance.

All this "know how" is out on the job with Champion field engineers right now. It's available — free — to help Champion users get the best possible ignition performance, with the lowest possible maintenance costs. Put this exclusive Champion technical help to work improving the operation of *your fleet*. Call your Champion representative or supplier, or write Champion at Toledo 1, Ohio.



5. Putting classroom theory into practice, field engineer Howard Tranum works out a problem in distributor advance. This is an example of the way "know how" is kept fresh and growing at Champion — to give *you* the best possible ignition performance.



CHECK YOUR TUNE-UP

OSHKOSH

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
Gasoline			
IHC RD-406	406	6	4 ³ / ₈ x 4 ¹ / ₂
IHC RD-450	450	6	4 ³ / ₈ x 5
IHC RD-501	501	6	4 ¹ / ₂ x 5 ¹ / ₄
Con R-6513	513	6	4 ¹ / ₂ x 5 ³ / ₈
Con R-6572	572	6	4 ³ / ₄ x 5 ³ / ₈
Con R-6602	602	6	4 ⁷ / ₈ x 5 ³ / ₈
Wau 145GKB	779	6	5 ¹ / ₄ x 6
H-S 6182-G-1	1091	6	5 ³ / ₄ x 7
Diesels			
Cum JT-6-B	401	6	4 ¹ / ₈ x 5
Cum H-6-B	672	6	4 ⁷ / ₈ x 6
Cum HRF-6-B	743	6	5 ¹ / ₈ x 6
Cum NH-220	743	6	5 ¹ / ₈ x 6
Cum NHRS-6-B	743	6	5 ¹ / ₈ x 6

Oil Pressure

IHC engines...
30-40 psi @ 1500 rpm
Wau 145 GKB...
40 psi @ 2400 rpm
Con engines... 50-60 psi
H-S 6182-G-1...
10 psi @ 350 rpm
Cum engines... 30-50 psi @ governed speed.

Compression Pressure

(At cranking speed)
Con engines... 120 psi
Wau 145GKB... 115 psi

IGNITION

Cam Angle (Dwell)

H-S 6182-G-1... 27-37 deg
All others... 31-37 deg

Breaker Point Gap

IHC engines... .019-.024 in.
Con engines... .022 in.

Wau 145 GKB... .018 in.
H-S 6182-G-1... .021 in.

Spark Occurs

(Degrees Before Top Center)

IHC & Con engines... 5 deg
Wau 145GKB... TC
H-S 6182-G-1... 2 deg

SPARK PLUGS

Make & Type

IHC engines... AC 43 Com, CH J-6 or AL A-5
Con engines... CH 8 Com
Wau 145 GKB... CH H-9
H-S 6182-G-1... Intake side: CH 10 Com; Exhaust side: CH 6 Com

Size

IHC, Con & H-S engines 18 mm
H-S 6182-G-1... 14 mm

Gap

H-S 6182-G-1... .016 in.
All others... .025 in.

VALVES

Operating Tappet Clearance

IHC engines... Inlet & Exhaust: .020-.022 in.
Con engines... Inlet: .018 in.
Exhaust: .024 in.
Wau 145 GKB (cold)...
Inlet: .013 in.
Exhaust: .030 in.
H-S 6182-G-1... Inlet: .021 in.
Exhaust: .031 in.

VALVE SPRINGS

Free Length

IHC RD-406, RD-450...
Inner: 2 11/32 in.
Outer: 2 9/16 in.
IHC RD-501... Inner: 2³/₄ in.
Outer: 2 13/16 in.
Wau 145GKB...
Inner: 3 3/32 in.
Outer: 3 7/16 in.
Cum JT-6-B... 2.539 in.
Cum H & HRF-6-B... 3.484 in.
Cum NH & NHRS-6-B 3.313 in.

Pressure

IHC engines... Inner: 83- 88 lb
Outer: 133-141 lb
Con R6513, R6602 (valve open)...
Inner: 90 lb @ 1.367 in.
Outer: 160 lb @ 1.617 in.
Con R 6572 (valve open)...
173 lb @ 1.750 in.
Wau 145GKB (valve open)...
Inner: 100 lb @ 2.063 in.
Outer: 158 lb @ 2.375 in.
H-S 6182-G-1 (valve open)...
Inner: 110 lb @ 1.938 in.
Outer: 143 lb @ 2.000 in.
Cum JT-6-B... 122 lb @ 1.673 in.
Cum H & HRF-6-B...
179.5-198.5 lb @ 2 3/16 in.
Cum NH & NHRS-6-B...
104-114 lb @ 1 27/32 in.

BATTERY

Amp-Hour Capacity

All models with Cummins or Hall-Scott engines... 200
All others... 153

Terminal Grounded

All models... Pos

SAE Group

All models with Cummins or Hall-Scott engines... 7D
All others... 4H

FRONT END

Toe-In

All models 0-1/8 in.

Camber

W2200 series, WA-906... 1/2 deg
All others 1 deg

Caster

All models 1 deg

King Pin Slant

All models 3 deg

CAPACITIES

Crankcase

IHC engines 9 qt
Con engines 10 qt
Wau 145 GKB 18 qt
H-S 6182-G-1 16 qt
Cum JT-6-B 16 qt
Other Cum engines 35 qt

Transmission

Truck Model

W-216, W-316, W-416.... 16 pt
All others 24 pt

Cooling System

Truck Model

W-216, W-316, W-416,
W-516 40 qt
W-816, 817, 826, 827,
WA906 42 qt
W-826 (6x6) 42 qt
WA-2208, WA-2209 66 qt
WA-2206 75 qt
W-2211 80 qt
All others 54 qt

LUBRICATION

Crankcase

IHC engines...Above 32 deg use
SAE 40; Between 10 and 32
deg use SAE 20W. Below 10
deg use SAE 10W.
Con R6513...Above 32 deg use
SAE 30; Between 0 and 32
deg use SAE 20; Below 0 deg
use SAE 10.
Con R6602...Above 80 deg use
SAE 30; Between 20 and 80
deg use SAE 20; Below 20
deg use SAE 10.
H-S 6182-G-1...Above 32 deg use
SAE 30; Below 32 deg use
SAE 20.
Wau 145 GKB...Above 70 deg use
SAE 50; Between 50 and 70

deg use SAE 40; Between 30
and 50 deg use SAE 20; Be-
low 30 deg use SAE 20W.

Cummins engines...Above 80 deg
use SAE 30; Between 20 and
80 deg use SAE 20; Below 20
deg use SAE 10.

Transmission

All models...Use straight mineral
oil gear lubricant. In Sum-

mer use SAE 140; in Winter
use SAE 90.

Rear Axle

Single reduction....Use Hypoid
gear lubricant; SAE 140 in
Summer, SAE 90 in Winter.

Double reduction....Use straight
mineral oil gear lubricant;
SAE 140 in Summer, SAE 90
in Winter.



LP-GAS FOR

TRUCKS

CALLS FOR...

ENSIGN

CARBURETION

LP-Gas offers amazing economies and improved engine performance when properly vaporized, carburetted and thoroughly mixed with air in the correct ratios for every load and speed — idling, acceleration and wide open throttle. Ensign engineers with their engine dynamometer laboratory, one of the finest in the nation, have consistently through nearly half a century improved carburetor performance in gasoline, natural gas and LP-Gas engines. Whether you are an Original Equipment Manufacturer, a truck or LP-Gas dealer, you can count on Ensign LP-Gas carburetion for the finest, most consistently dependable performance known in the industry today. **INSIST ON ENSIGN — ACCEPT NOTHING LESS!**



LP-GAS
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LP-GAS
CARBURETOR



LP-GAS FILTER

ENSIGN CARBURETOR COMPANY

1551 E. Orangethorpe, Fullerton, California
Branch Factory: 2330 W. 58th Street, Chicago, Illinois

ROAD FAILURES COST MORE THAN NEW CABLE...



REPLACE WITH LONG-LIFE PACKARD CABLE NOW

A complete Packard re-wiring job probably costs less than a single breakdown on the road. That's why many fleet owners give their maintenance departments standing orders to replace immediately any suspected electric wiring with new Packard Cable.

Why Packard Cable? Because its specially developed insulation is built to ward off all the natural enemies of cable that are always present. Packard insulation resists abrasion, yet maintains cable flexibility. It fights oil and acids without

ever giving in to them. And most types of Packard Cable will never burn—its insulation simply will not support combustion.

For more miles of service at less cost, replace with new Packard Cable—so dependable that it is *original equipment* on more cars, trucks and buses than all other makes combined! And it is the choice of the big majority of transportation maintenance award winners year after year! Packard Cable is available everywhere through the United Motors System.

There's a Packard Cable for every fleet need



T.V.R.S. CABLE

Long the leader, this Packard-developed high-tension cable is used on more vehicles than any other, except for Packard T.V.R.S.

This exclusive Packard ignition cable suppresses radio and TV interference. It is original equipment on millions of vehicles.



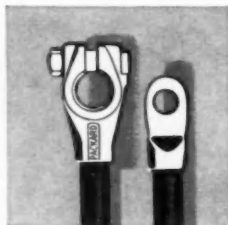
"440" IGNITION CABLE



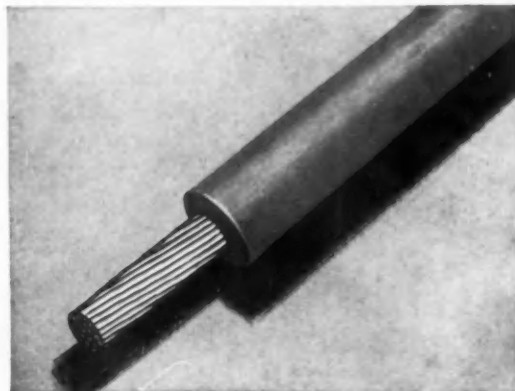
ENGINE COMPARTMENT CABLE

An exclusive Packard low-tension cable that is compact, flexible and has a high-heat insulation that even steam cleaning can't harm.

Specially designed by Packard to deliver full starting power, resist acids and corrosion, and make replacement easier.



BATTERY CABLE



PACKARD SUPER DUTY CABLE IS REALLY TOUGH

Designed to take the extra punishment that comes with exposed wiring conditions, Packard Super Duty Cable delivers a longer service life. Its extra heavy plastic insulation is unaffected by water, road splash, sunlight, oil and age, and will not support combustion. Stands up under abrasion and knocks to lessen your operating costs.

Whatever your cable needs, you can get them from one source when you deal with Packard, world's largest producer of automotive cable. It's the original equipment line used more than all others combined.

Packard Electric

Warren, Ohio



"Live Wire" division of General Motors



CHECK YOUR TUNE-UP

PETERBILT

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
Cummins NHB	743	6	5 $\frac{1}{8}$ x 6
Cummins NT6B	743	6	5 $\frac{1}{8}$ x 6
Cummins NHBS	743	6	5 $\frac{1}{8}$ x 6
Cummins NHRBS	743	6	5 $\frac{1}{8}$ x 6
Hall-Scott 1091	1090	6	5 $\frac{3}{4}$ x 7
Buda 6DAS-844	844	6	5 $\frac{1}{4}$ x 6 $\frac{1}{2}$

Oil Pressure

Cummins engines (with oil temperature @ 140 deg)...30-50 psi @ governed speed

H-S 1091 (butane & gas)...10 psi @ 350 rpm

Buda 6DAS-844...40 psi @ 1400 rpm

IGNITION

Cam Angle (Dwell)

H-S 1091 34-37 deg

Spark Occurs

(Degrees Before Top Center)

H-S 1091.....Gasoline: 2 deg
Butane: 8 deg

Breaker Point Gap

H-S 1091021 in.

SPARK PLUGS

Make & Type

H-S 1091...Gasoline—Intake side, CH 10 Com; Exhaust side, CH 6 Com; Butane—Intake side, CH 6 Com; Exhaust side, CH 4 Com.

Size

H-S 1091 18 mm

Gap

H-S 1091018-.023 in.

VALVES

Operating Tappet Clearance

(Hot unless noted)

CumminsInlet: .014 in.

Exhaust: .027 in.

H-S 1091 (Cold)...Inlet: .021 in.

Exhaust: .031 in.

Buda 6DAS-844...Inlet and Exhaust: .015 in.

Seat Angle

Cummins engines 30 deg

H-S 1091Inlet: 30 deg

Exhaust: 45 deg

Face Angle

Cummins engines 30 deg

H-S 1091Inlet: 30 deg

Exhaust: 44 $\frac{1}{2}$ -44 $\frac{3}{4}$ deg

VALVE SPRINGS

Free Length

Cummins engines ... 3.313 in.

Pressure

(Valve Open)

Cummins engines...

104-114 lb @ 1.8437 in.

H-S 1091.....Inner: 105 lb @

1 15/16 in; Outer: 138 lb @

2 in.

Buda 6 DAS.....200-210 lb @

2 13/64 in.

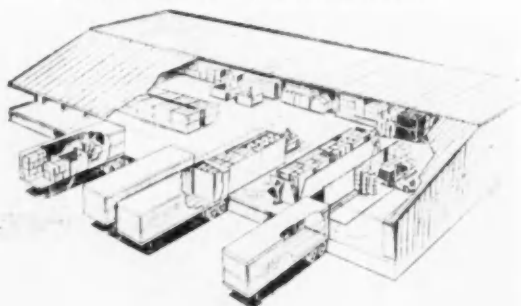
BATTERY

Amp-Hour Capacity

All models (2 batteries)... 152

COMMERCIAL CAR JOURNAL, April, 1959

Freight Handling Costs Reduced



Two methods for pre-assembling trailer loads of freight have been advanced by Industrial Truck Div., Clark Equipment Co., as possibilities for lowering truckers' handling costs. Picture above at right shows trailer-size box which opens on four sides. Freight is pre-loaded by fork truck before line haul trailer arrives. Full box is then pushed into trailer on rollers. At destination, procedure is reversed. Result: quick turn-around time for rolling stock and high cost of manual loading eliminated. Shown at left is three-sided cubage box in which freight is stored until loaded on trailer. Fork lift with plunger pushes load from box to trailer floor.

Plates Per Cell

All models 19

SAE Group No.

All models 4D

Terminal Grounded

All models Pos

FRONT END

Toe-In

All models 0-1/8 in.

Camber

All models 1 deg

Caster

Truck Model

280-350 series 3 deg

360, 360 COE 2 deg

370, 381, 390 1 1/2 deg

King Pin Slant

Truck Model

370, 381, 390 8 deg

All others 5 1/2 deg

CAPACITIES

Crankcase

All models 20 qt

Transmission

All models 18 qt

Rear Axle

Truck Model

280, 281 series 26 pt

350, 351 series (each)... 14 pt

All others (each) 20 pt

Cooling System

All models 60 qt

LUBRICATION

Crankcase

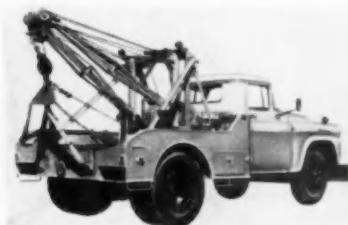
All models...Above 90 deg use
SAE 30; Between 60 and 90
deg use SAE 20; Between 10
and 60 deg use SAE 10

Transmission

All models...Use SAE 140 in
Summer, SAE 90 in Winter.

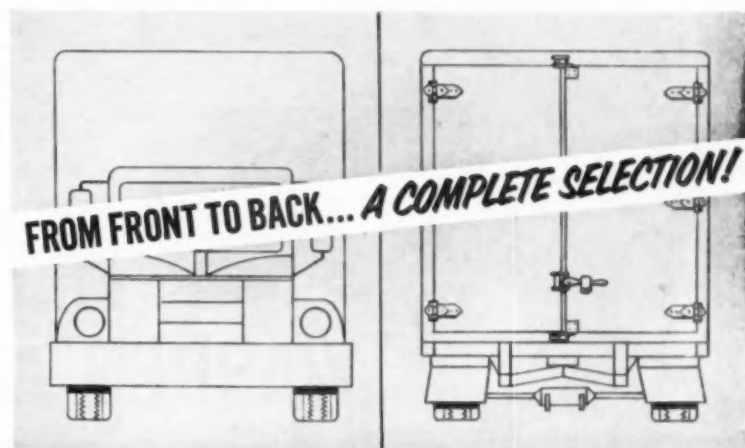
Rear Axle

All models...Use SAE 140 in
Summer, SAE 90 in Winter.



New Wrecker Body

A new line of wrecker bodies being manufactured by Reading Body Works, Reading, Pa., is designed for mounting on standard truck chassis. They are made in lengths from 90 to 120 in. overall. Body is electrically welded into one integral unit. Water-tight tool compartments on both sides are optional.



HANSEN *COMMERCIAL BODY* HARDWARE



Hinges, locks, handles, window regulators and other accessories . . . just about everything you need to complete a fine body building job, you'll find in the Hansen Commercial Body Hardware line. Send for complete literature today!

**HANSEN...The Hardware
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All Principal Cities



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MEET WARREN AUSTRAW

Manager of Transportation, F. J. Kress Box Co., Division of St. Regis Paper Co., Pittsburgh, Pa.

...and discover how to keep tire costs down!

Mr. Austraw has been licking trucking problems for over 20 years. And the one he's handling right now is just about the toughest ever. Why? Because the F.J. Kress Box Company guarantees deliveries that are synchronized with plant production schedules. These delivery timetables are so tight that any delay can cause the shutdown of a plant's assembly line! Nevertheless, trucking costs have to be kept down.

That's why Mr. Austraw has selected Kelly Tires for all Kress trucks. "Experience proves," says Mr. Austraw, "that Kellys have the toughness and dependability we need to keep our trucks rolling over all kinds of roads, in all kinds of weather. On top of this, our carefully kept records show that Kellys are tops for economy as well as dependability—we get remarkable original and recap mileage. Kellys save us money on a cost-per-mile basis."



This outline map shows the area serviced by the F.J. Kress Box Company. Kress manufactures custom-made corrugated containers for practically every type of product from foods to furniture. Plants are operated in the places indicated on the map. The home office is located in Pittsburgh.



NYLON
TRACTOR RIB

NYLON
DUAL TRAC

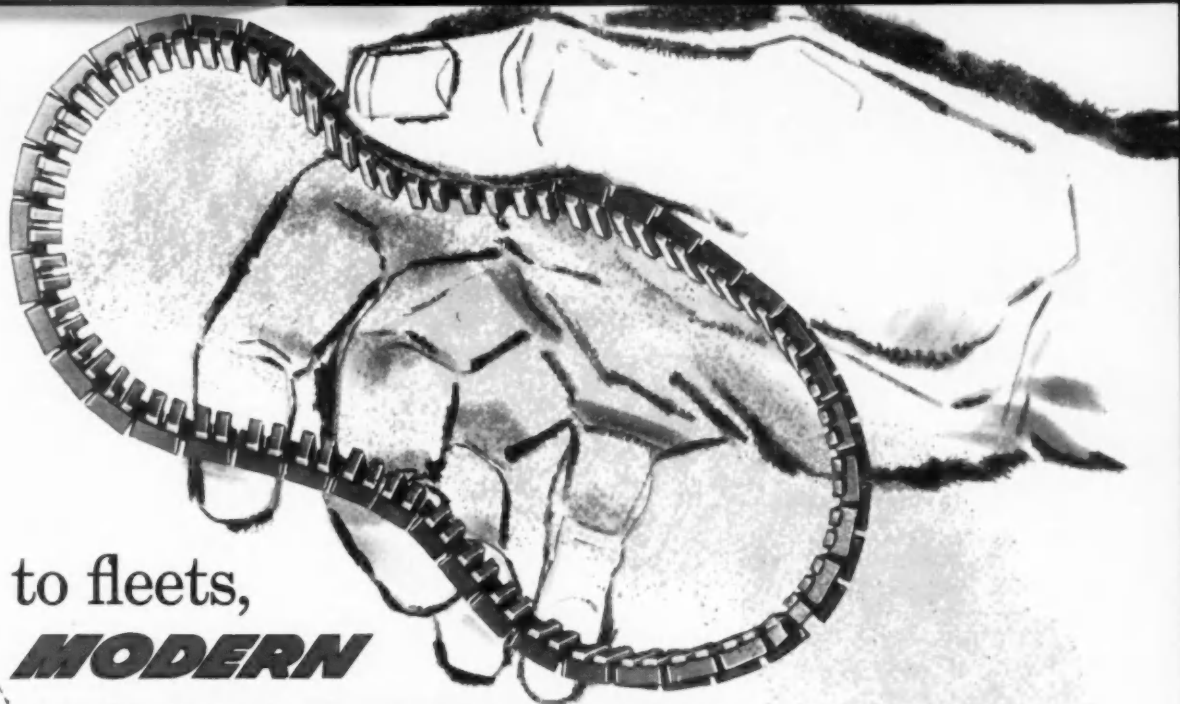
NYLON
C. H. T.

NYLON
SUPER ARMOR TRAC

KELLY
Springfield
TIRES

... THE SIGN OF
BONUS TRUCK
TIRE MILEAGE!

THE KELLY-SPRINGFIELD TIRE COMPANY, CUMBERLAND, MD. • THE KELLY-SPRINGFIELD TIRE COMPANY OF CANADA, LTD., TORONTO, ONTARIO, CANADA



to fleets,
MODERN
CONFORMABILITY
 means less oil cost,
 less down time,
 more profit!

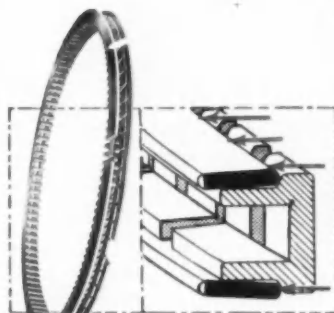
Look at the illustration above.
 It shows the heartbeat of conformability.

When butted end-to-end, the Duomatic expander acts like a coiled spring, exerting outward pressure against wafer-thin rails.

No matter how worn, tapered or out-of-round a cylinder may be, the expander automatically adjusts, *conforms*. Like the human heart, it's constantly at work: expanding, contracting, expanding...

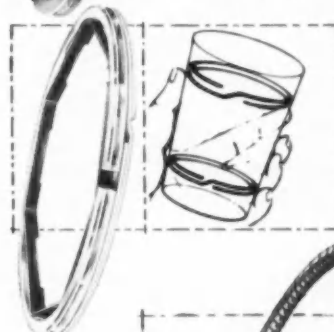
U-Flex, C-9 and Spiro-Seal oil rings *all* have this MODERN POWER action. That's why more and more fleets—both cars and trucks—are standardizing on RAMCO.

To find out more about MODERN POWER, call your RAMCO Jobber today.



C-9 Conformability

Instant response to taper and wear is essential to MODERN POWER. C-9 brings this response to a modern new high with extreme flexibility of Duomatic expander and radially thinner rails.



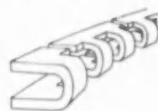
Spiro-Seal Conformability

Spiro-Seal segment works like a watch spring: expands, contracts, depending upon cylinder taper or wear. Rides free of inner ring pressure until after seat-in.

RAMCO MODERN POWER PISTON RING SETS

Ramsey Corporation, a subsidiary of Thompson Ramo Wooldridge Inc.

Why MODERN POWER with conformability is important to you is explained in detail in this colorful, illustrated book. Yours FREE when you write Ramsey Corporation, 3710 Forest Park Blvd., St. Louis 8, Mo.



U-FLEX

Complete, maximum conformability is achieved. Rails are eliminated; the full flexibility of the U-Flex construction is utilized.



CHECK YOUR TUNE-UP

REO

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
OA-255, OA-255 LPG, OA-110	255	6	3 $\frac{5}{8}$ x 4 $\frac{1}{8}$
OA-130, OA-292	292	6	3 $\frac{7}{8}$ x 4 $\frac{1}{8}$
OA-331, OA-331 LPG, OA-145	331	6	4 $\frac{1}{8}$ x 4 $\frac{1}{8}$
OH-160, OH-160 LPG, OH-170	331	6	4 $\frac{1}{8}$ x 8 $\frac{1}{8}$
OH-185	362	6	4 $\frac{1}{4}$ x 4 $\frac{1}{4}$
OV-195, OV-200, OV-207	390	8	3 $\frac{7}{8}$ x 4 $\frac{1}{8}$
OV-220, OV-220 LPG	440	8	4 $\frac{1}{8}$ x 4 $\frac{1}{8}$
OV-225, OV-235	440	8	4 $\frac{1}{8}$ x 4 $\frac{1}{8}$

Oil Pressure

All 6-cyl engines...35 psi @ 2000 rpm Minimum, 40-60 psi @ top speed Maximum.

All 8-cyl engines...35-40 psi @ 2000 rpm Minimum, 45-60 psi @ top speed Maximum.

Compression Pressure

Cranking speed about 150 rpm with wide open throttle and all spark plugs out.

OA-110, OA-130, OA-145, OH-160 ..	110-130 psi
OA-331, OA-255 ..	110-130 psi
OA-255 LPG	115-135 psi
OA-225, OV-220, OV-200, OV-195	120-140 psi
OH-185, OH-170, OV-207, OA-331 LPG	130-150 psi
OV-235, OH-160 LPG	145-165 psi

IGNITION

Cam Angle (Dwell)

OA- gasoline engines...	31-37 deg
OA- LPG engines...	38-45 deg
OH-160 LPG	31-37 deg
OH-160	31-37 deg
With opt. dist:	38-45 deg
OH-170, OH-185	38-45 deg
OV- series	26-33 deg

Breaker Point Gap

OA- gasoline engines... .022 in.

OH-160 LPG .....	.022 in.
OH-160 .....	.022 in.
With opt. dist:..	.016 in.
All others .....	.016 in.

Spark Occurs

Degrees Before Top Center at given idle speed

Engine

OA-255, OA-110...	8 deg @ 450 rpm
OA-292, OA-130...	4 deg @ 450 rpm
OA-331, OH-145...	2 deg @ 450 rpm
OA-LPG's ..	6 deg @ 450 rpm
OH-160 LPG	8 deg @ 500 rpm
OH-160	5 deg @ 500 rpm
OH-185	6 deg @ 500 rpm
OH-170	2 deg @ 500 rpm
OV- series..	TC @ 500 rpm

SPARK PLUGS

Make & Type

Engine	
OA-255, OA-255 LPG, OA-110	CH J-7
OV-series	CH H-9
All others	CH J-6

Size

All engines

14 mm

Gap

Engine

OA LPG's

.020 in.

OH-160 LPG .....	.020 in.
All others .....	.025 in.

Torque

All engines

25-30 lb-ft

VALVES

Operating Tappet Clearance

(Hot unless noted)

OA-engine	Inlet: .015 in.
	Exhaust: .015 in.
OH-185, OH-170 ..	Inlet: .022 in.
	Exhaust: .022 in.
All others	Inlet: .020 in.
	Exhaust: .020 in.

Seat Angle

All engines

30 deg

Face Angle

All engines

29 $\frac{1}{2}$ deg

TORQUE

Manifold Bolt

All engines

35-40 lb-ft

Cylinder Head Bolt

All engines.....

100-105 lb-ft

VALVE SPRINGS

Free Length

OH V-8 series (Gas & LPG)...	
	Inlet: 2.1406 in.
	Exhaust: 1.816 in.
OH-185 (Gas)...	Inlet: 2.1406 in.
	Exhaust: 1.816 in.
Other gasoline engines...	
	Inlet & Exhaust: 2.1406 in.
Other LPG engines...	
	Inlet: 2.1406 in.
	Exhaust: 1.816 in.

Pressure

LPG engines...Inlet: 178-188 lb compressed to 1.163 in., valve open; 64-70 lb compressed to 1.583 in., valve closed. Exhaust: 174-192 lb compressed to 1.360 in., valve open; 63 $\frac{1}{2}$ -70 $\frac{1}{2}$ lb compressed to 1.780 in., valve closed.

All others...Inlet and Exhaust: 178-188 lb compressed to 1.360 in., valve open; 64-70 lb compressed to 1.780 in., valve closed.

BATTERY

Amp-Hour Capacity

N. Y. school bus, F-120, F-122	110
A-600 D, AC-603 D, A-630 D, A-700 D, AC-703 D (Diesel)....	204
Other diesels	163
All others	70

Plates Per Cell

N. Y. school bus, F-120, F-122	11
A-600 D, AC-603 D, A-630 D, A-700 D, AC-703 D (Diesel)....	29
Other diesels	21
All others	13

Terminal Grounded

All models	Neg
------------------	-----

FRONT END

Toe-In

Axle Model No.

All are Timken	
27461, 27462	1/16- 1/8 in.
F-223-D/R	3/16-5/16 in.
F-2090-D/R	1/16-3/16 in.
All others	0- 1/8 in.

Camber

F-233-D/R, F-2090-D/R..	0 deg
All others	1 deg

Caster

27461, 27462	3 deg
30000, 31104, 32500 ...	2 deg
FD-900, FD-901, FE- 900 (on Reo F & C series)	1 1/2 deg
FD-900, FD-901, FE- 900 (on Reo A se- ries)	3 1/4 deg
F-223-D/R, F-2090-D/R	5-7 deg

King Pin Slant

27461, 27462	8 deg
30000, 31104, 32500....	8 deg
F-233-D/R, F-2090-D/R	0 deg
All others	5 1/2 deg

CAPACITIES

Crankcase

OH-170, OA-145...	
(No filter):	8 qt
With filter:	9-10 qt

OV-series ....(No filter):	8 qt
With filter:	10 qt
Other OH, OA series...	
(No filter):	8 qt
With filter:	9 qt
JT6-B diesel (No filter):	12 qt
With filter:	16 qt
NH-180 diesel (No filter):	24 qt
With filter:	40 qt

Transmission

Warner T98A	8 pt
Clark 205V, 205VO	9 pt
Clark 265V, 265VO	12 pt
Clark 290V, 292VO	18 pt
Spicer 3152, 3153	10 pt
Spicer 6252, 6253	15 pt
Spicer 6354, 6452, 6453..	17 pt
Spicer 8041, 8045	16 pt
Spicer 8125	28 pt
Spicer 8251, 8255	24 pt
Fuller R35	16 pt
Fuller R46	17 pt
Fuller R63, R630D	28 pt
Fuller R96, R960	33 pt
Fuller 5A65, 5A650	24 pt
Fuller 5C72, 5C720	24 pt
Fuller 10B1120	35 pt

Auxiliary

Spicer 5831	4 pt
Spicer 6231, 7231, 6041..	8 pt
Spicer 8031, 8035, 8341..	12 pt

Transfer Case

Timken T-77	5 pt
-------------------	------

Rear Axle

Axle Model No.

C-100	12 1/2 pt
E-100, E-105	15 pt
E-150	9 pt
E-300, F-140	13 pt
F-340	16 pt
H-100	20 pt
H-140	18 pt
H-150	11 pt
H-200	28 pt
H-240, H-340, L-240 ..	22 pt
H-300	26 pt
L-100	23 pt
L-140, QT-140	24 pt
L-200, LF-200, Q-100, QT-200	31 pt
L-300, LT-300, L-340, QT-300	29 pt
Q-200, R-300	34 pt
QT-240, Q-300, QT-340, RT-240, RT-340 ..	32 pt
R-100, R-140	30 pt
R-200	36 pt
U-200	38 pt
U-300	39 pt

Eaton

1911, 18800, 19503	24 pt
2011, 16600, 20503	20 pt
17500	22 pt
13600	13 pt

Tandems

SDHD	Front: 16 pt	Rear: 16 pt
SFHD	Front: 17 pt	Rear: 16 1/2 pt
SLHD	Front: 32 1/2 pt	Rear: 32 pt
SQHD	Front: 34 pt	Rear: 31 pt

(Following are for each axle)

SFD-3020, SFDD-3020..	31 pt
SFD-4600, SFDD-4600, SLD, SLDD	28 pt
SQD, SQDD	22 pt
SQW	33 pt
w/housing cover 6 1/2 in. deep overall	40 pt
SQTT-235, SQTT-335, rear only	44 pt
22M.....Front & Rear:	12 pt
Power Divider:	9 pt
28M.....Front & Rear:	17 pt
Power Divider:	9 pt
32M.....Front:	28 pt
Rear:	33 pt
Power Divider:	3 pt
36M.....Front & Rear:	24 pt
Power Divider:	3 pt
42M....	
Rear hole (f. & r.):	20 pt
Front hole (f. & r.):	2 pt
Power Divider:	6 pt
56M.....Front & Rear:	24 pt

Front Drive

F-2090, F-233	12 pt
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Cooling System

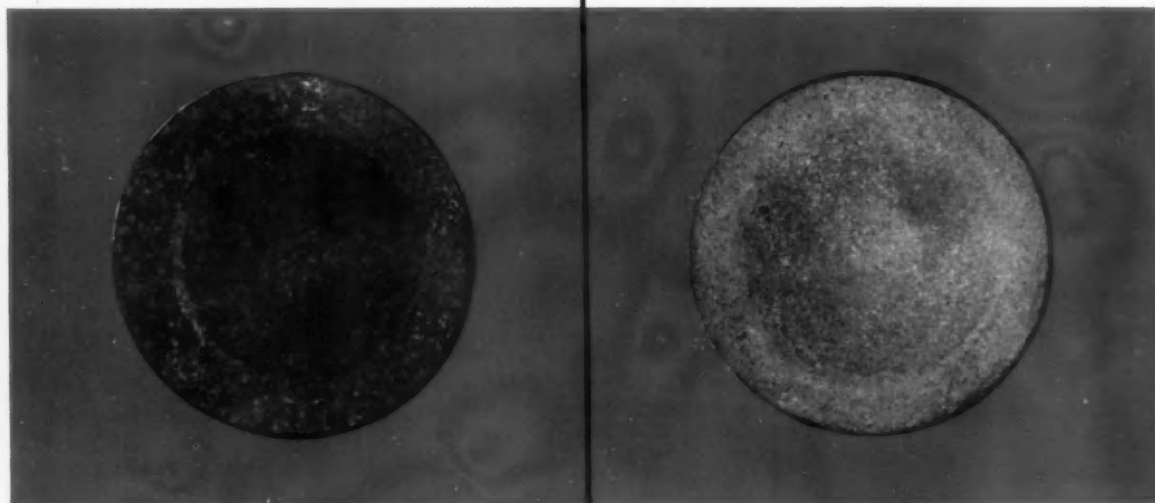
Engine

CF series...	
OA-110, OA-255: 24-22 1/2 qt	
All other engines: 26-22 1/2 qt	
A-AC series...	
OV engine:	37 1/2 qt
JT6B engine:	31 qt
A-C series ...OH-170:	30 qt
AC series ...OA-145:	30 qt
C series ...OH-185:	31 1/2 qt
B series	48 qt
BCL series	54 qt
F-C series	28 qt

(TURN TO PAGE 357, PLEASE)

The EATON Process of Aluminizing Exhaust Valve Heads **PREVENTS PRE-IGNITION**

CAUSED BY INCANDESCENT SCALE



NOT ALUMINIZED

Note Scale which Promotes
Pre-ignition

ALUMINIZED

Absence of Harmful
Scale Prevents Pre-ignition

Conventional exhaust valve steels, run at high temperatures, tend to corrode and scale, promoting damaging pre-ignition. This condition can be overcome by the use of expensive high-alloy materials. However, there is a simple and less expensive solution to the problem. By applying the Eaton aluminizing process to conventional exhaust valve steel, resistance to corrosion and scaling can be increased tremendously, thereby eliminating a condition which can be a major cause of pre-ignition.

Inlet valves conditioned by the Eaton aluminizing process also are contributing to the increased efficiency, dependability and service life of engines.

Our Valve Division engineers will be glad to discuss the application of Eaton aluminized valves to your engines. Send for illustrated literature.



Aluminizing of Inlet Valve Seat-Face Prevents Oxidation

After aluminizing by the Eaton process, this plain carbon steel valve was placed in an air atmosphere furnace at 2000°F. for 16 hours. Gross oxidation of the base steel resulted. The aluminized seat-face and margin areas were unaffected.

EATON

— VALVE DIVISION —
MANUFACTURING COMPANY
BATTLE CREEK, MICHIGAN



PRODUCTS: Engine Valves • Tappets • Hydraulic Valve Lifters • Valve Seat Inserts • Jet Engine Parts • Hydraulic Pumps
Truck and Trailer Axles • Truck Transmissions • Permanent Mold Iron Castings • Automotive Heaters and Air Conditioners
Fastening Devices • Cold Drawn Steel • Stampings • Forgings • Leaf and Coil Springs • Dynamatic Drives and Brakes
Powdered Metal Parts • Gears • Variable Speed Drives • Speed Reducers • Differentials • Centralized Lubrication Systems

MINER

TUBULAR BAR TYPE

Door Fasteners

FOR TRUCK AND TRAILER BODIES

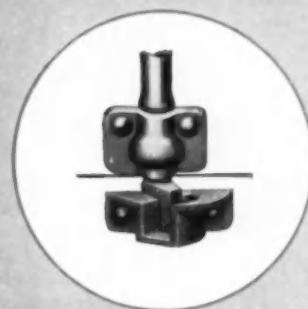
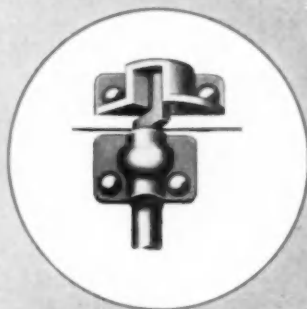
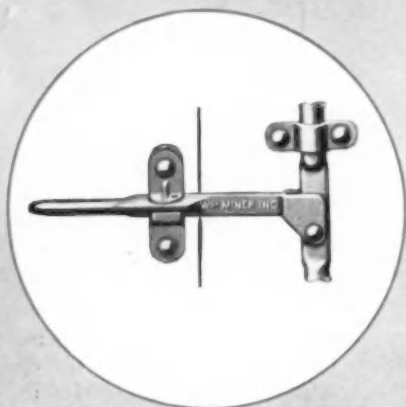
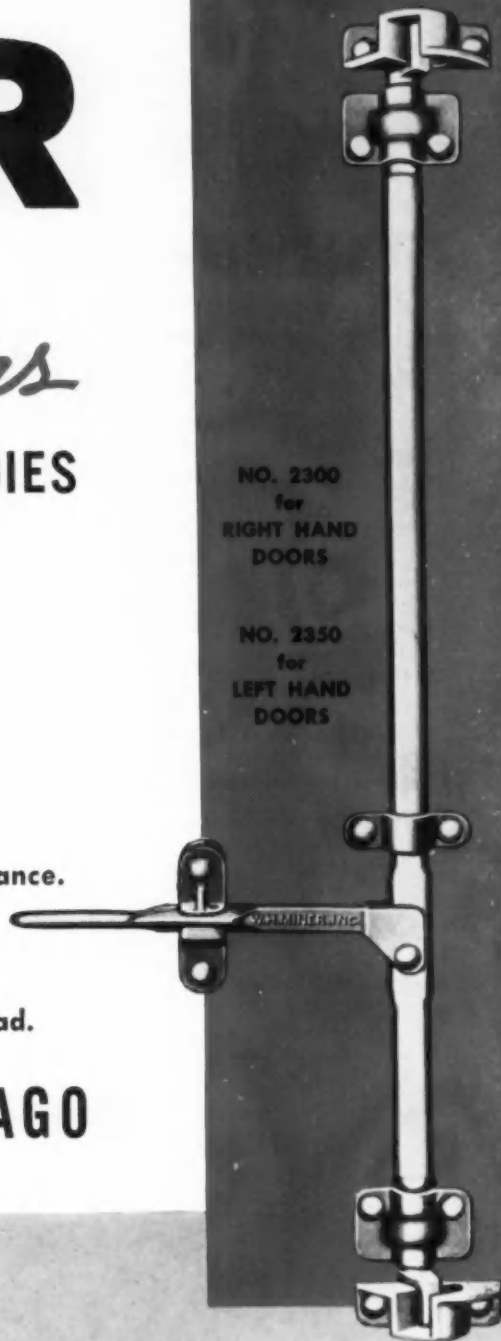


- DROP FORGED for greater strength.
- OVAL LOCKING BAR for greater rigidity.
- SPECIAL CARBON STEELS for greater endurance.
- ALUMINUM FINISH.
- DEEPER KEEPERS for positive security of load.

W. H. MINER, INC., CHICAGO

NO. 2300
for
RIGHT HAND
DOORS

NO. 2350
for
LEFT HAND
DOORS



"Miner" on the handle is a symbol of quality and excellence in design, backed by 65 years of experience.

Greater security and service are assured by providing deeper pockets and larger bearing areas in upper and lower keepers.



CHECK YOUR TUNE-UP

STUDEBAKER

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
1E	169.6	6	3 x 4
3E	259.2	V-8	3 9/16 x 3 1/4
4E	245.6	6	3 5/16 x 4 3/4
5E	289	V-8	3 9/16 x 3 5/8
6E	289	V-8	3 9/16 x 3 5/8

Oil Pressure

All engines...40 psi @ 1400-1600 rpm with oil @ 150 deg

Compression Pressure

All engines...Standard: 130-150 psi @ 150 rpm; Optional: 120-140 psi @ 150 rpm.

4E	31-37 deg
3E, 5E, 6E	28-34 deg

Breaker Point Gap

Engine	
1E	.018-.022 in.
4E	.022 in.
3E, 5E, 6E...	
	Original: .013-.018 in.
	After wear-in: .010-.015 in.

IGNITION

Cam Angle (Dwell)

Engine

1E	38-40 deg
----	-----------

Spark Occurs

(Degrees Before Top Center)

All 6-cyl engines.....	2 deg
All 8-cyl engines.....	4 deg

High Strength Dump Trailer



The new MR series Talbert Trailers feature a wide "V" cross-member design which supports 50 per cent more of the floor to counteract washboarding. Empty weight is 11,500 lb. The H beam frame is made of high strength steel. The series is made in 18 and 20 ft models. Both have Hendrickson rubber bushed tandems. An 8-in. direct ram hydraulic hoist handles the dumping.

SPARK PLUGS

Make & Type

All 6-cyl engines....	CH J-7
All 8-cyl engines....	CH H-10

Size

All engines	14 mm
-------------------	-------

Gap

All 6-cyl engines.	.028-.033 in.
All 8-cyl engines.	.033-.038 in.

Torque

All engines	26-30 lb-ft
-------------------	-------------

VALVES

Operating Tappet Clearance

All 6-cyl engines...	
Inlet & Exhaust:	.016 in. Cold
All 8-cyl engines...	
Inlet & Exhaust:	.023-.025 in. Hot

Seat Angle

All engines	45 deg
-------------------	--------

Face Angle

All engines	45 deg
-------------------	--------

TORQUE

Manifold Bolt

All engines...	
Inlet & Exhaust:	26-30 lb-ft

Cylinder Head Bolt

Engine

1E	45-50 lb-ft
4E	80-85 lb-ft
3E, 5E, 6E.....	55-65 lb-ft

VALVE SPRINGS

Pressure

(Valve Open)

Engine

1E	93-103 lb @ 1 5/16 in.
4E...	Std: 125-135 lb @ 1 1/4 in.
	H. D. Exh: 125-135 lb @ 1 1/2 in.
3E, 5E...	
	Inlet: 105-115 lb @ 1 43/64 in.
	Exhaust—Std: 105-115 lb @ 1 43/64 in.; H. D.: 106-116 lb @ 1 11/32 in.

6E...

Inlet: 105-115 lb @ 1 43/64 in.
Exhaust: 106-116 lb @ 1 11/32 in.

BATTERY

Amp-Hour Capacity

Truck Model

4E series Standard: 50
Optional: 70

Plates Per Cell

All models 9

Terminal Grounded

All models Neg

FRONT END

Toe-In

All models 1/16-1/8 in.

Camber

All models 1/16-1/8 in.

Caster

(Loaded)

Truck Model

4E1, 4E2, 4E3, 4E5,
4E6, 4E7, 4E11,
4E12 4 deg
4E13, 4E14 3 1/2 deg

King Pin Slant

Truck Models

4E1, 4E2, 4E3, 4E5,
4E6, 4E7, 4E11,
4E12 7 1/2 deg
4E13, 4E14 8 deg

CAPACITIES

Crankcase

Truck Model

4E6, 4E11, 4E14 6 qt
All others 5 qt

Transmission

New Process 420 6.5 pt
Warner T90B 2.5 pt
Opt O'drive... 3.4 pt
Warner T89C 3.0 pt
Opt O'drive... 3.9 pt
Warner T98A 8.0 pt

Rear Axle

Spicer 2211 3 pt
Spicer 60 5 1/2 pt

Tim B-100-N-X-3 9 1/2 pt
Tim E-102-N-X-2 18 1/2 pt
Tim E-302-N-X-7 14 pt
Tim F-146-N-X-1 16 pt
Tim H-140-N-X-9 18 pt
Tim G-346-N-X-6 24 pt
Tim H-340-N-X-12 23 pt

Cooling System

4E1, 4E5 Standard: 10 1/2 qt
H.D. Rad: 13 1/2 qt
4E3, 4E6, 4E11...
Standard: 15 1/2 qt
H.D. Rad: 16 qt
4E14, 4E14D, 4E16...
Standard: 16 qt
H.D. Rad: 16 1/2 qt
4E2, 4E2D... Standard: 20 1/4 qt
H.D. Rad: 20 3/4 qt
4E40 21 1/4 qt
All other Standard: 20 3/4 qt
H.D. Rad: 21 1/4 qt

LUBRICATION

Crankcase

All engines... Use MS type engine oil alone or with MM, ML or DG. Do not use DS type. Above 32 deg use SAE 30; from 10 to 32 deg use SAE 20W; From -10 to 10 deg use SAE 10W. Below -10 deg use SAE 5W.

Transmission

3-speed... Use SAE 90 regular type gear lubricant all year.

3-speed with Overdrive... Use SAE 90 regular mineral oil gear lubricant all year. Note: Do not use lubricants with Extreme Pressure ingredients.

4- and 5-speed... Use regular gear lubricant. Above 32 deg use SAE 140; Below 32 deg use SAE 90.

Automatic... Use Type A (AQ-ATF) automatic transmission fluid all year.

Rear Axle

Spicer axles... Use SAE 90 hypoid lubricant all year. For models with Twin-Traction differential use SAE 90 high grade hypoid lubricant with sulphur-chlorine-lead base.

Truck models 4E13D, 4E40, 4E40B and 2 speed axles... Use SAE 90 hypoid gear lubricant. Above 32 deg use SAE 140; Below 32 deg use SA E90.

MODEL NUMBERS

Truck Model... See plate on left door step riser.

Engine Model... Engine number on 6-cyl engines is stamped on machined pad at upper left front of block. On V-8 models the number is on a machined pad adjacent to the oil filler tube.

High Speed Jet Refueler

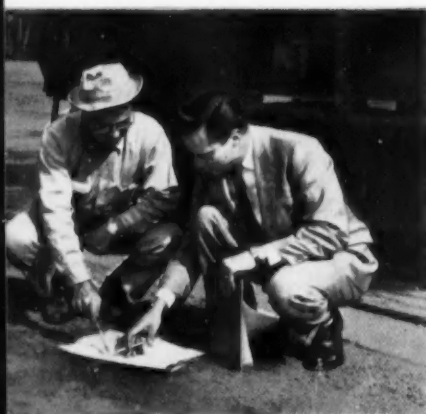


Currently in use by American Airlines at Los Angeles International Airport is this new Model No. MHE-1 High Speed Jet Refueler. Made by Pryor Mfg. Co., Mansfield, Ohio, it is designed to service Boeing 707 jets and Lockheed Electra turbo-prop aircraft. Pumping capacity is 600 gal per minute. Boom rotation covers an arc of 320 deg. The self-propelled unit can be mounted on any standard 1 1/2-ton truck chassis.

How Standard Oil serves a contractor

Case example:

What happened when
Isabella Construction
got U.S. Highway 41 paving
job near Milwaukee



This is next. Louis Isabella explains job details to Standard's Jerry Bushman. Isabella's contract covered concrete paving of 26 miles of 24 ft. single lane highway plus interchange connections. When complete, Highway 41 in Wisconsin will be a divided lane freeway.

When N. M. Isabella, Inc. set out to put down 26 miles of pavement on U.S. Highway 41, they met Standard Oil's Jerry Bushman, an experienced automotive lubrication specialist. Jerry was ready right then to provide technical assistance on the job.

The contractor next learned about Standard Oil service when two Standard agents went into action. One agent, they found, was based at Slinger, only three miles away. Another agent was located at Allenton, only five miles from the part of 41 to be paved. These agents set up delivery schedules to the job, and meanwhile, Jerry Bushman arranged for fuel storage and pumping equipment.

Isabella put down 363,000 square yards of paving, averaging 1,600 feet of production daily. They got the job done because they were backed by the kind of service they, and their subcontractors, received from Standard.

Standard has 3,900 agents in the 15 Midwest and Rocky Mountain states ready to serve contractors in the same way these two agents served Isabella. Lubrication technical service comes from qualified, trained men located in Standard's 48 district offices. Get this kind of help on your job. Call the Standard office nearby or write to **Standard Oil Company (Indiana), 910 S. Michigan Ave., Chicago 80, Ill.**

Standard Oil Petroleum Products used by N. M. Isabella, Inc.

STANOLUBE S-1 Motor Oil


STANDARD RED CROWN Gasoline

STANOLEX Diesel Fuel

AMOCO Lithium Multi-Purpose Grease



You expect more from **STANDARD** and you get it!



Standard's Jerry Bushman and Don Isabella wind up some lubrication details. Jerry knows the score when it comes to lubrication of construction equipment. He has a science degree from Marquette plus more than four years' experience in this sort of work. He has also completed the Standard Oil Sales Engineering School course.



CHECK YOUR TUNE-UP

VOLKSWAGEN

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
Volkswagen 1192	72.74	4	3.03 x 2.52

Oil Pressure

1192 37 psi @ 2500 rpm

Compression Pressure

1192... 7 psi @ cranking speed

Gap

1192024-.028 in.

Torque

1192 22-29 lb-ft

IGNITION

Cam Angle

1192 52-56 deg

Breaker Point Gap

1192016 in.

Spark Occurs

(Degrees Before Top Center)

1192 7½ deg

SPARK PLUGS

Make & Type

1192...AC 43L, AL AE6 or CH L10S

Size

1192 14 mm

VALVES

Operating Tappet Clearance

1192 (Cold) Inlet: .004 in.
Exhaust: .004 in.

Seat Angle

1192 Inlet: 45 deg
Exhaust: 45 deg

TORQUE

Cylinder Head Bolt

1192 14 & 22 lb-ft

VALVE SPRINGS

Free Length

1192 1.1 in.

BATTERY

Amp-Hour Capacity

1192 77

Plates Per Cell

1192 13

Terminal Grounded

1192 Neg

FRONT END

Toe-In

77 MM Loaded: .04 in.
Unloaded: .08-2 in.

Camber

77 MM 1/6-1 1/6 deg

Caster

77 MM 0 deg

CAPACITIES

Crankcase

1192 5.3 pt

Transmission—Rear Axle

77 MM 5.3 pt
Refill: 4.2 pt

LUBRICATION

Crankcase

1192...Above 86 deg use SAE 30;
Between 32 and 86 deg use
SAE 20 or 20W; Below 32 deg
use SAE 10W; Below -13
deg use SAE 5W

Transmission—Rear Axle

1192...Above 32 deg use SAE 90;
Below 32 deg use SAE 80.



King-Size Caravan

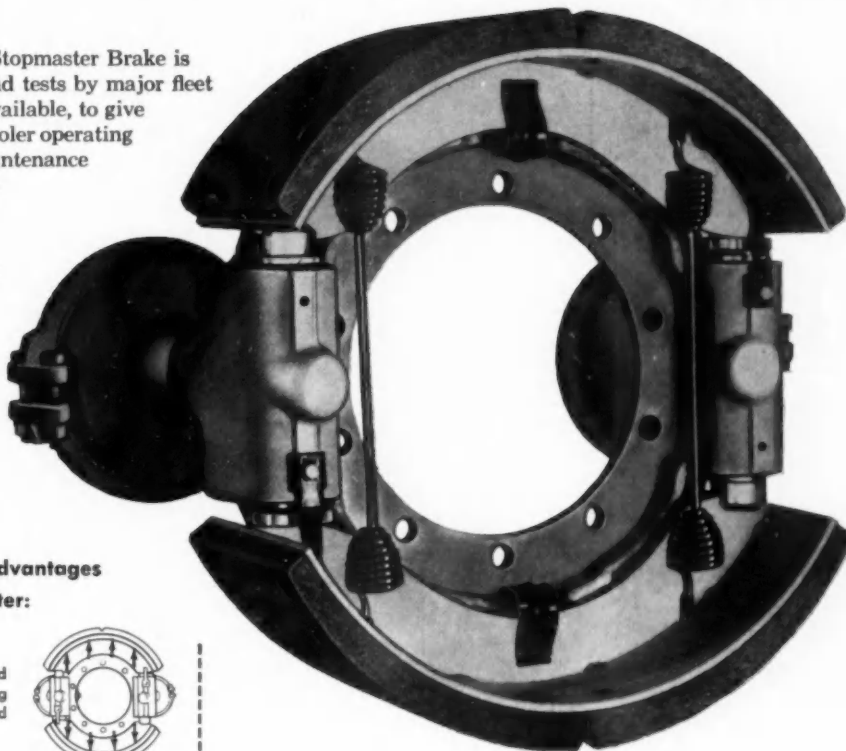
This seemingly endless truck convoy attracted considerable attention enroute from Chicago to Salt Lake City. Transported was more than one million dollars' worth of Payloader tractor-shovels built by the Frank G. Hough Co. Equipped with Goodyear tires, they were distributed to construction fleets in 11 western states and western Canada. The shipment was the largest known truck caravan ever to depart from Chicago.

leading fleet operator road tests are proving... **THE NEW STOPMASTER BRAKE**

the most advanced new brake design in 30 years!

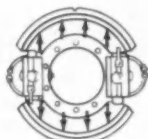
Rockwell-Standard's new Stopmaster Brake is now undergoing rugged road tests by major fleet operators. It will soon be available, to give you faster, surer stops . . . cooler operating temperatures . . . lower maintenance costs . . . and lighter weight for greater payloads!

Greatly improved performance characteristics of the Stopmaster permit standardization on a single brake diameter for a diversified line of vehicles. It will be offered in a 15" diameter for highway vehicles and in various widths.

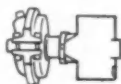


Just A Few Of The Many Advantages Of The New Stopmaster:

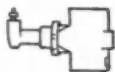
Balanced Shoe Action, in both air and hydraulic designs, gives uniform lining wear, increased drum and lining life and reduced bearing stress.



Close Coupled, Compact Unit for greater ease of mounting. New-design air actuators are mounted directly to the supporting member of the brake assembly, reducing vulnerable outrigging and improving road clearance.



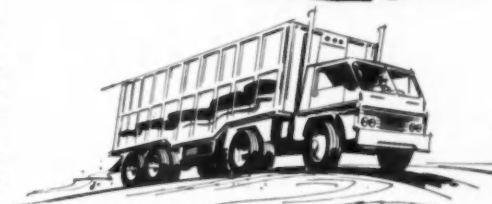
Greater Heat Ranges possible with hydraulic brake due to new design external wheel cylinders. This means full braking performance at higher operating temperatures, without boiling of brake fluid or damage to rubber wheel cylinder parts.



New Stopmaster Actuation Principle offers new standards of efficiency over conventional designs. Assures uniform braking performance in both single or dual actuator units.



© 1959, R-S Corp.



**ROCKWELL-STANDARD
CORPORATION**

BRAKE DIVISION Ashtabula, Ohio

Brakes for every industrial, agricultural or
automotive application where
braking is required!



Now...for *TRUCKS*—“RED CODED” Johns-Manville 4-Star Brake Blocks

These J-M 2500 Blocks deliver faster braking—top all-around performance

Now you can get maximum economy and safety at today's higher speeds and heavier payloads with these J-M blocks designed especially for heavy-duty truck and trailer service . . . and coded with *red-edge markings* for quick identification, foolproof replacement.

Studying the requirements of heavy-duty trucks under all operating conditions was the first step taken by Johns-Manville friction experts in creating J-M Style

2500 Blocks. This was followed with intensive product research and development. The result: an advanced block construction that prevents glazing and the related problem of heat-checking of drums. And since J-M 2500 is also free from erratics and water-fade, it delivers uniformly stable friction under variable weight loadings, temperatures and moisture conditions.

Take full advantage of the free J-M Brake Advisory Service for fleet operators . . . and let a J-M field engineer recommend how you can best utilize Style 2500 Blocks. He's an expert when it comes to efficiency. Just write or call Johns-Manville Brake Advisory Service, Box 14, N.Y. 16, N.Y. In Canada: Port Credit, Ontario.



JOHNS-MANVILLE

LESS DOWN TIME!

NEW pusher pump keeps trucks rolling



One year's field experience in hundreds of overland trucks establishes this startling fact: trucks equipped with Tokheim In-Tank Fuel Pumps require *less down time*. The reasons are obvious. First, a Tokheim will outlast a conventional pump 3 to 1. Then, because they are free from vapor-lock and engine starvation, Tokheim-equipped trucks continue to roll when others are down because of burned out

valves, or other engine conditions necessitating overhauls. These are facts no truck operator can afford to ignore. The Tokheim pusher pump delivers ample fuel to the carburetor at all times. It assures cold starts; solves engine fueling problems; makes any truck a more useful, profitable vehicle. See your truck equipment distributor today, or write to Tokheim for details and literature.

General Products Division

TOKHEIM CORPORATION

Fort Wayne, Indiana



***IN-TANK ELECTRIC
FUEL PUMP***



CHECK YOUR TUNE-UP

WALTER

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
Waukesha 6MZA	404	6	4 1/4 x 4 3/4
Waukesha 140GZ	554	6	4 5/8 x 5 1/2
Waukesha 145GK	779	6	5 1/4 x 6
Waukesha 145GKB	779	6	5 1/4 x 6
Cummins NHB-600	743	6	5 1/8 x 6
Le Roi TH-540	540	8	4 1/2 x 4 1/4

Oil Pressure

Wau 6MZA, 145GK..	Wau 145GK	85- 90 psi
40 psi @ 1500 rpm	Wau 145GKB	95-100 psi
Other Waukesha engines...	Le Roi TH-540	125-140 psi
40 psi @ governed speed		
Cum NHB-600...		
30 psi @ governed speed		
Le Roi TH-540...		
45 psi @ governed speed		

Compression Pressure

(At cranking speed)

Wau 6MZA	110 psi
Wau 140GZ	90- 95 psi

Cam Angle (Dwell)

Wau engines	31-37 deg
Le Roi TH-540	21-30 deg

Breaker Point Gap

All gasoline engines..	.018 in.
------------------------	----------

Spark Occurs

(Degrees Before Top Center)

Wau engines	Top Center
Le Roi TH-540....	35 deg

SPARK PLUGS

Make & Type

All Wau engines	CH J-6
Le Roi TH-540	CH J-8

Size

All gasoline engines...	14 mm
-------------------------	-------

Gap

All Wau engines.....	.025 in.
Le Roi TH-540.....	.027 in.

VALVES

Operating Tappet Clearance

(Cold Waukesha engines, others are for hot engine)

Wau 6MZA	Inlet: .009 in.
	Exhaust: .019 in.
Others	Inlet: .013 in.
	Exhaust: .025 in.
Cum NHB-600.....	Inlet: .014 in.
	Exhaust: .027 in.
Le Roi TH-540...	
	Inlet & Exhaust: .013 in.

Seat Angle

Wau 140, 145	Inlet: 30 deg
	Exhaust: 45 deg
Le Roi TH-540.....	45 deg

VALVE SPRINGS

Pressure

(Valve Open)

Wau 6MZA...	110 lb @ 1 31/32 in.
Wau 140GZ...	
	Inner: 70 lb @ 1 7/16 in.
	Outer: 127 lb @ 1 21/32 in.
Wau 145GK, 145 GKB...	
	Inner: 70 lb @ 2 1/16 in.
	Outer: 104 lb @ 2 3/8 in.
Le Roi TH-540...	
	106 lb @ 1 3/5 in.

TORQUE

Cylinder Head Bolt

Wau 6MZA	73-75 lb-ft
Wau 140GZ	175 lb-ft

COMMERCIAL CAR JOURNAL, April, 1959



"I find th' tumble action is far superior!"

Wau 145GK, 145GKB...

Long: 175 lb-ft

Short: 150 lb-ft

BATTERY

Amp-Hour Capacity

All models 150

Plates Per Cell

All models 17

SAE Group No.

All models 4D

Terminal Grounded

All models Pos

FRONT END

Toe-In

All models 0-3/16 in.

Camber

All models 1½ deg

Caster

All models 5 deg

King Pin Slant

All models 2 deg

CAPACITIES

Crankcase

Wau 6MZA 8 qt

Wau 140GZ 10 qt

Wau 145GK & GKB 18 qt

Cum NHB-600 28 qt

Le Roi TH-540 12 qt

Transmission

Truck Model

FZM 26 pt

Others 33 pt

Rear Axle

FZM 5 pt

Others 7 pt

Cooling System

FZM 32 qt

Others 57 qt

Leadfoot Louie inquires, "Didja hear about the bashful blonde who worked all her crossword puzzles vertically so that she wouldn't have to come across?"

LUBRICATION

Crankcase

All gasoline models...Use SAE 30 in Summer, SAE 20 in Winter.

All diesel models...Use SAE 20 in Summer, SAE 10 in Winter.

Transmission

All models...Use SAE 140 Extreme Pressure lubricant all year.

Rear Axle

All models...USE SAE 140 Extreme Pressure lubricant all year.

MODEL NUMBERS

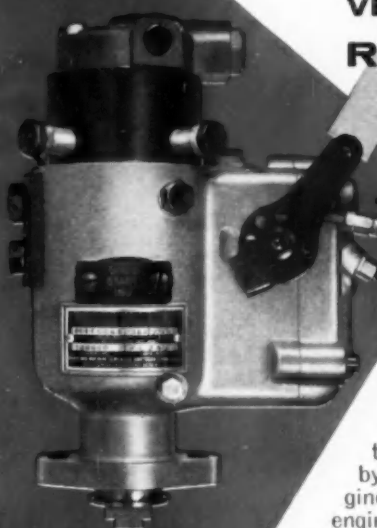
Truck Model...See name plate on cowl.

Engine...See plate on rear left of block.

More than 40,000 DIESEL ENGINES

are equipped with
**VERTICALLY driven
ROOSA MASTER**

fuel injection pumps



The vertical pump drive arrangement, pioneered by Hartford Machine Screw Company, is a revolutionary and exclusive ROOSA MASTER feature. The vertical adaptability has saved manufacturers thousands of tooling expense dollars by permitting standardization of engine blocks for gasoline and diesel engines.

More than 40,000 vertically driven ROOSA MASTER pumps in satisfactory field service are proving that the vertical application to existing and new engine designs is practical and sound.

VERTICAL DRIVE ADVANTAGES: • Simplicity of installation • Easy accessibility • Shorter injection lines for better performance • Lower cost • Makes available space for other accessories.

**HARTFORD MACHINE SCREW CO.
HARTFORD 2, CONN.**

Division Of Standard Screw Company



**HMS
ROOSA MASTER**

You can depend on the diesel that depends on ROOSA MASTER



336 NEW TRAILERS ADD 20% PAYLOAD PER RIG FOR SOUTHERN-PLAZA FLEET

Southern-Plaza Express, Inc., Dallas, Texas, included 336 new aluminum trailers in its multimillion dollar replacement program. Vice president of operations, Edward R. Pecora, says, "We replaced every existing trailer. Included are 336 aluminum TRAILMOBILE units with design improvements that allow us to haul up to 20 per cent more freight. With the same over-the-road dimensions of our older trailers, this added cubage permits consolidation of L-T-L shipments and better pickup and delivery service for our customers." Proof again that extra payload-capacity aluminum trailers roll up more profit with every trip.

Alcoa Aluminum Makes the Big Difference

Designed by TRAILMOBILE, INC., of Cincinnati, Ohio, extra revenue-producing units such as these Trailmobile CID "Series 60" trailers are built with lightweight Alcoa® Aluminum. Corrosion resistant and durable, aluminum points the way to extra profits at less cost. Write today for your FREE copy of *The Road to Payload Profits: Aluminum Company of America*, 1770-D Alcoa Building, Pittsburgh 19, Pa.



Your Guide to the Best in Aluminum Value

For Exciting Drama Watch "Alcoa Theatre," Alternate Mondays, NBC-TV, and "Alcoa Presents," Every Tuesday, ABC-TV





"Take a tip from me before you order your new trucks"

**"THOMPSON POSITIVE VALVE ROTATORS
WILL CUT YOUR TON-MILE COSTS!"**

"You can specify positive rotators installed in engines at the factory when ordering your new trucks.

"And you can put them on your present rigs, too, at the next scheduled engine overhaul."

These inexpensive exhaust valve rotators pay for themselves in short order! Here's why:

Exhaust valve life is increased up to 8 times!
Valve overhauls and unscheduled repairs are substantially reduced.

Burned or stuck valves are practically eliminated.

Engine compression and fuel economy stay at tune-up peak far longer.

Valve stem and guide wear is reduced.

The sum-total is lower ton-mile costs. Only a *positive* valve rotator will do it... only Thompson makes them! **MAKE SURE YOUR NEXT TRUCK ORDER SPECIFIES THOMPSON POSITIVE VALVE ROTATORS!**



ROTOCAP



ROTOIL



THOMPSON PRODUCTS

Valve Division

Thompson Ramo Wooldridge Inc.

1455 EAST 185th STREET • CLEVELAND 10, OHIO



CHECK YOUR TUNE-UP

WARD-LA FRANCE

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
Continental T6427	427	6	4 5/16 x 4 7/8
Continental R6572	572	6	4 3/4 x 5 3/8
Continental R6602	602	6	4 7/8 x 5 3/8
Cummins HB-600	672	6	4 7/8 x 6
Cummins HRB-600	743	6	5 1/8 x 6
Cummins NHB-600	743	6	5 1/8 x 6
Cummins HRF	743	6	5 1/8 x 6

Oil Pressure

(At governed speed)

Con T6427	40-60 psi
Other Con engines ..	50-60 psi
Cummins engine (with oil temperature @ 140 deg)	30-50 psi

Compression Pressure

Con T6427...115 psi @ cranking speed
Other Con engines...120 psi @ cranking speed

IGNITION

Cam Angle (Dwell)

Con T6427	31-37 deg
Other Con engines..	39 deg

Breaker Point Gap

All Con engines020 in.
-----------------------	----------

Spark Occurs

Con T6427...15-17 deg Before Top Center @ 1500 rpm
Other Con engines...5 deg Before Top Center

SPARK PLUGS

Make & Type

Con engines	CH 8 Com
-------------------	----------

Size

Con engines	18 mm
-------------------	-------

Gap

Con engines025 in.
-------------------	----------

150

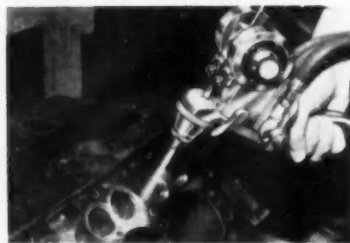
VALVES

Operating Tappet Clearance

(Hot unless noted)

Con T6427	Inlet: .017 in.	Exhaust: .017 in.
Other Con	Inlet: .020 in.	Exhaust: .020 in.
Cum NHB-600....	Inlet: .014 in.	Exhaust: .027 in.
Other Cummins ...	Inlet: .014 in.	Exhaust: .022 in.

Sprayed Metal Repairs Parts



Cracked engine blocks, worn axle flanges and other automotive parts are salvaged by using a pressurized metal spray manufactured by the Metallizing Company of America. A metallizing "gun" permits precise control of pressurized metal spray. The atomized metal is actually "built on" to add new service life to the repaired part. It forms a dense coating with wearing quality equal to new metal, says the maker.

Seat Angle

Cummins engines	30 deg
-----------------------	--------

Face Angle

Cummins engines	30 deg
-----------------------	--------

TORQUE

Cylinder Head Bolt

Continental engines...	
3/8 in.:	35- 40 lb-ft
7/16 in.:	70- 75 lb-ft
1/2 in.:	90-100 lb-ft
9/16 in.:	130-140 lb-ft
5/8 in.:	145-155 lb-ft
Cummins engines ..	430-450 lb-ft

VALVE SPRINGS

Free Length

Cummins HRF	3.484 in.
Other Cummins	3.313 in.

Pressure

(Valve Open)

Con T6427...	
Inner:	57 lb @ 1.458 in.
Outer:	129 lb @ 1.458 in.
Con R6572, R6602...	
Inner:	85 lb @ 1.75 in.
Outer:	165 lb @ 1.75 in.
Cummins NHF series...	
179 1/2-198 1/2 lb @	2.1875 in.
Other Cummins...	
104-114 lb @	1.8437 in.

BATTERY

Amp-Hour Capacity

Truck Model	
D-1, D-3 series (with 2 batteries)	152
D-5 series (with 4).....	152

Plates Per Cell

All models	19
------------------	----

Terminal Grounded

All models	Pos
------------------	-----

FRONT END

Toe-In

All models	1/16-3/16 in.
------------------	---------------

Camber

All models	3/4-1 1/2 deg
------------------	---------------

COMMERCIAL CAR JOURNAL, April, 1959

Caster

All models $\frac{1}{2}$ - $1\frac{1}{2}$ deg

King Pin Slant

All models $5\frac{1}{2}$ deg

CAPACITIES

Crankcase

Con T6427	8 qt
(Add 1 qt for filter)	
Other Con engines	14 qt
(Add 4 qt for filter)	
Cum HB-600	20 qt
Other Cum engines	28 qt

Transmission

Truck Model

D-1	16 pt
Others	24 pt
Auxiliaries	12 pt

Rear Axle

Truck Model

D-1	31 pt
Other single axles	38 pt

Tandems:

T-2	14 pt
T-4	17 pt
T-7	32 pt
T-8	28 pt
F, H	38 pt
G	34 pt

Sitting Pretty!



Check the engine block as well as the model sitting on top. It's an Alcoa aluminum block, weighs just 90 lb. Cast iron block on other end of the teeter scales 220 lb. Simple arithmetic will give you the girl's weight, as she counter-balances the heavy block almost perfectly.

Cooling System

Con T6427	36 qt
Other Con engines	60 qt
Cummins engines	56 qt

Cummins engines...Use SAE 30 above 80 deg, SAE 20 between 20 and 80 deg, SAE 10 below 20 deg

LUBRICATION

Crankcase

Continental engines...Use SAE 40 in Summer, SAE 20 or 10 in Winter

Transmission

All models....Use SAE 140 in Summer, SAE 90 in Winter

Rear Axle

All models...Use SAE 140 in Summer, SAE 90 in Winter

Proved 125,000,000 Times!



BENDIX STARTER DRIVES

For nearly fifty years—and in well over 125,000,000 automotive installations—the Bendix* Starter Drive has been proving itself the best performing drive in its field. That's why most fleet owners specify genuine Bendix Starter Drives and parts whenever starter drive service is required. They know that good service and dependable performance are essential in order to meet competition—and that, in starter drives, *the best by far is Bendix*. Order by name from your distributor.

*REG. U. S. PAT. OFF.

Bendix-Elmira

Eclipse Machine Division
Elmira, New York



Watch the big change . . .

GMC

OPERATION "HIGH GEAR"

Things are really popping at GMC today! It's Operation "High Gear"! Engineering, manufacturing, sales and service have formed a close-knit team that is bringing the truck industry the biggest money-saving, money-making advancements wheeled transportation has ever known! A few are shown here. Your GMC Dealer is the man to see for *all* that's new. GMC Truck & Coach—a General Motors Division.

New fuel-saving power that lasts

SIXES	Displacement Cu. In.	Gross H.P.	Gross Torque
	270 A	130	238 @ 1200-2000
	270 B	140	246 @ 1400-2000
	302	160	268 @ 1600-2200
	503	217	455 @ 1000-1600

V-8's	Displacement Cu. In.	Gross H.P.	Gross Torque
	336	200	307 @ 2000-2400
	370	232	355 @ 2600

DIESELS	Model	Gross H.P.	Gross Torque
	4-71	152 @ 2300	374 @ 1500-1600
	6-71 SE	189 @ 1800	577 @ 1200
	6-71 SE	210 @ 2100	577 @ 1200

Sixes & V-8's

GMC gasoline-powered truck engines have built-in endurance and fuel-saving characteristics that are available in no other engines. For example, here are extra quality features: GMC M-400 bearings, the best made, with seven times longer life . . . rifle drilled connecting rods to guarantee positive lubrication, eliminate costly failures . . . electrically balanced crankshafts for smoother operation . . . plus every specialized refinement for dollars-ahead, time-ahead performance.

Diesels

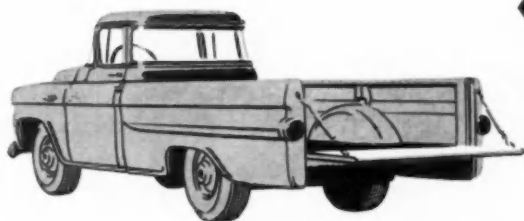
Reliable, smooth-running GMC diesel engines produce power on *every* stroke . . . high torque and horsepower to cut running time . . . less maintenance costs . . . greater fuel mileage.

These GMC extra-quality features are standard—fuel injectors that *meter, time, inject*, and *atomize* the fuel—Economy Range governor for greater fuel savings on 6-71SE . . . automatically-controlled fan that saves up to 5% *fuel* and releases up to 7% *extra H.P.*—and the best diesel service in the U.S., GM trained.

Lightest weight tractor in its class! New GMC DLR8000 48" all-aluminum "Tilt-Cab Cruiser" with 61,000 GCW! Ingenious structural design and generous use of lightweight materials have reduced truck weight up to 1824 pounds. Now you can haul bonus payloads in any state regardless of length or weight restrictions.

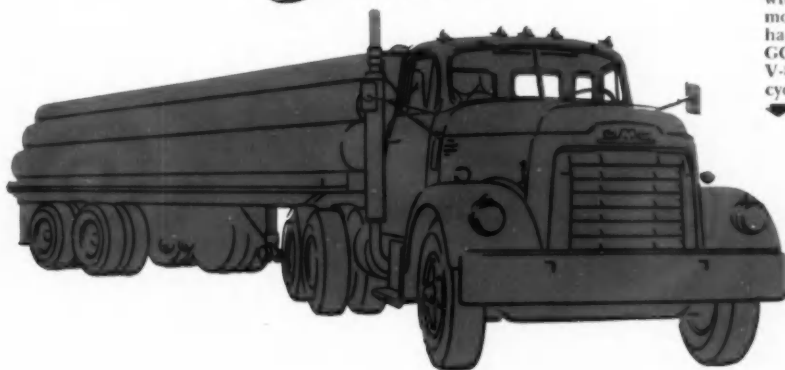


New load and road-matched models

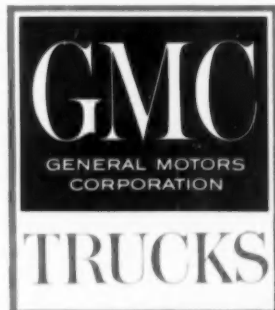


50% more capacity is yours in new Wide-Side pickups with 6½ and 8-foot bodies. GMC's complete line of pickups are available with truck-built sixes or proved V-8's, plus all power-assist options.

Now, complete GMC multi-stop models with matched chassis and bodies to meet practically every need—8, 10 and 12-foot bodies, up to 10,000 lbs. GVW. For loads to 19,500 lbs. GVW, new P350 models will mount up to 16-foot bodies.



Biggest range of six-wheelers in the industry with custom-matched load-carrying and load-moving components for any on- or off-highway hauling job—28,000 lbs. GVW to 90,000 lbs. GCW. Choice of gasoline-powered Sixes and V-8's—diesel-powered 4 and 6-cylinder two-cycle engines.



FROM ½-TON TO 45-TON—GENERAL MOTORS LEADS THE WAY!



CHECK YOUR TUNE-UP

WHITE

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
Gasoline			
116A	298	6	3 3/4 x 4 1/2
230A	340	6	4 x 4 1/2
250A, 450A, 462A	386	6	4 x 5 1/8
470A	477	6	4 1/2 x 5
490A	531	6	4 3/4 x 5
Diesel (Cummins)			
JT-6-B	401	6	4 3/4 x 5
NH180, NH195	672	6	4 7/8 x 6
NH220, NHB600	743	6	5 1/8 x 6
HRF, NTO-6B	743	6	5 1/8 x 6

Oil Pressure

All gasoline engines...	40 psi @ 2200 rpm
Cummins engine (with oil temperature @ 140 deg)	
Cummins JT-6	30-60 psi
All others	30-50 psi

Gap

All gasoline engines...	.023-.028 in.
-------------------------	---------------

Torque

All gasoline engines...	34 lb-ft
-------------------------	----------

IGNITION

Cam Angle

All gasoline engines.	31-37 deg
-----------------------	-----------

Breaker Point Gap

All gasoline engines...	.022 in.
-------------------------	----------

Spark Occurs

(Deg Before Top Center)

Engine

116A, 230A, 470A, 490A	6 deg
250A, 450A, 462A.....	3 deg

SPARK PLUGS

Make & Type

All gasoline engines...	CH D-10
-------------------------	---------

Size

All gasoline engines...	18 mm
-------------------------	-------

Face Angle

All gasoline engines...	
Inlet & Exhaust:	44 1/2 deg

TORQUE

Cylinder Head Bolt

All gasoline engines...	105-110 lb-ft
Cummins JT-6...	
11/16 in.:	280-300 lb-ft
3/4 in.:	380-400 lb-ft
All others	430-450 lb-ft

VALVE SPRINGS

Free Length

Engine	
116A	2 19/32 in.
230A	2 1/16 in.
250A, 450A, 462A...	2 9/16 in.
470A, 490A	2 17/32 in.
Cummins JT-6	2.539 in.
Cummins HRF	3.484 in.
All others	3.313 in.

Pressure

Engine	
116A... 145-155 lb @ 1 3/4 in.	
230A, 250A, 450A, 462A...	
154-164 lb @ 1 41/64 in.	
470A, 490A...	
177-187 lb @ 2 17/32 in.	
Cummins JT-6...122 lb compressed to 1.673 in.	
Cummins HRF... 179 1/2-198 1/2 lb compressed to 2.1875	
All others...104-114 lb compressed to 1.8437	

VALVES

Operating Tappet Clearance

All gasoline engines...	
Inlet & Exhaust:	zero
Cummins engines (with oil temperature @ 140 deg)	
JT-6	Inlet: .015 in.
	Exhaust: .025 in.
HRF	Inlet: .014 in.
	Exhaust: .022 in.
All others	Inlet: .014 in.
	Exhaust: .027 in.

Seat Angle

All gasoline engines...	
Inlet & Exhaust:	45 deg
Cummins engines...	
	Inlet: 30 deg
	Exhaust: 30 deg

BATTERY

Amp-Hour Capacity

Truck Model	
3015WLB...	
(one 6-volt battery)	119
All others with one 6-volt battery	120
WC2864OH...	
(two 6-volt batteries)	136
WC3264DOH, 3000TD, 9000TD, 9062TD, 9064TD...	
9062TD, 9064TD...	
(four 6-volt batteries)	136
WC22PLT, WC22T, 3000T, 3062T, 4200, 4200T, 4264, 4264T, 4264OH, 9000T, 9062T, 9064, 9064T...	
(one 12-volt battery)	60

3400TD, 4400D, 4400TD,
4464D, 4464TD,
5000TD...
(four 12-volt batteries) 60

Plates per Cell

Truck Model

WC16, WC20, WC20PLT,
WC2262PLT, 3014W,
3014WLB, 3015W,
3015WLB, 3016, 3016LB,
3020, 3020PLT, 3022,
302262T, 302264,
302264PLT, 3026,
3026OH 15
WC2864OH, WC3264DOH.. 17

FRONT END

Tee-In

All models 1/8 in.

Camber

All models 1 deg

Caster

Axle Model

12D, 58D, 59D, 63D, 64D,
79D, 115D +2 deg 50 min
116D (4-wheel models),
117D, 121D +2 1/2 deg
116D (6-wheel models) -2 deg
120D +3 1/4 deg

King Pin Slant

Axle Model

12D, 58D, 59D 8 1/2 deg
63D, 64D 8 deg
116D, 117D, 115D, 121D. 6 deg
120D 0 deg

CAPACITIES

Crankcase

Engine Model

116A, 230A, 250A, 450A,
462A 12 qt
470A, 490A 15 qt
Cummins JT-6 16 qt
Other Cummins engines. 28 qt

Transmission

Transmission Model

418B 11 pt
423B, 507B, 520B, 522B,
557B 16 pt
426B 7 pt
502B, 552B 13 pt
510B, 560B 23 pt

517B, 521B, 537B, 541B,
558B, 559B 24 pt
900B Front: 16 pt
Rear: 8 pt
1003B 16 pt
1004B 29 pt
1011B Front: 24 pt
Rear: 12 pt

(Note: On following transmis-
sions, fill through main trans-
mission hole to auxiliary plug
level.)

801B, 802B 17 pt
1026B, 1076B 30 pt
1027B, 1077B 36 pt

Auxiliary Transmission

6231, 7231 8 pt
8031 12 pt

Rear Axle

Rear Axle Model

116C 16 pt
124C, 134C, 138C, 233C,
338C 26 pt
133C, 189C, 336C 24 pt
135C 32 pt
136C 22 pt
208C 34 pt
232C, 235C, 333C, 389C.. 44 pt
292C, 293C, 318C 18 pt
317C 15 pt
328C 20 pt
329C 17 pt
333TC, 389TC 35 pt
335C 38 pt
400C(36M)...Each axle: 24 pt
Power divider: 3 pt
401C(SFD4600)...
Each axle: 25 pt
407C(32M) Front: 26 pt
Rear: 32 pt
Power divider: 3 pt
412C, 424C, SQD,
416C(42M)...
Each axle: 22 pt
414C(SQW) .. Each axle 26 pt
426C(38DS) Front: 24 pt
Rear: 22 pt

Note: Following transmissions
take an additional 2 pt in in-
ter-axle after reassembly.

411C, 422C, SLDD...
Each axle: 24 pt
413C, 420C, SQDD,
417C, SRDD...
Each axle: 22 pt
415C(SFDD4600)...
Each axle: 25 pt
418C(SLHD) Front: 26 pt
Rear: 32 pt

Cooling System

Truck and Engine Model

WC series with 460A en-
gine 26 qt
WC series with other gas
engines 30 qt
WC3264DOH with
NHB600 engine 41 qt
3014, 3015, 3016, 3020,
3022 with 116A, 230A
engines 28 qt
302262, 302264, 3026 with
250A engine 29 qt
3000T series with 450A,
460A, 462A engines. 31 qt
3000T series with 470A,
490A engines 40 qt
3000TD series with
J-T-6B engine 29 qt
3400TD series 42 qt
4000T series with 470A,
490A engines, 4200T
series with 450A,
462A engines, 4400TD series 38 qt
4000TD series with
J-T-6B engine 34 qt
4200T series with 470A,
490A engines 43 qt
9000T series with 450A,
460A engines 33 qt
9000T series with 450A,
460A engines and
separate surge tanks 40 qt
9000T series with 470A,
490A engines and
separate surge tanks 41 qt

LUBRICATION

Crankcase

All gasoline engines...Heavy
duty SAE 30 summer, heavy
duty SAE 20 winter.

Cummins engine...Above 90 deg,
use SAE30; Between 32 and
90 deg, use SAE 20; Below
32 deg, use SAE 10W.

Transmission

Transmission Model

418B, 426B, 502B, 507B, 510B,
517B, 520B, 521B, 522B, 537B,
541B, 552B, 557B, 560B, 801B,
802B, 900B, 1003B, 1004B,
1011B, 1026B, 1027B, 1076B,
1077B...Use SAE 90 mineral
oil Summer and Winter.
423B, 558B, 559B...SAE 50 engine
oil Summer and Winter.
(TURN TO PAGE 359, PLEASE)

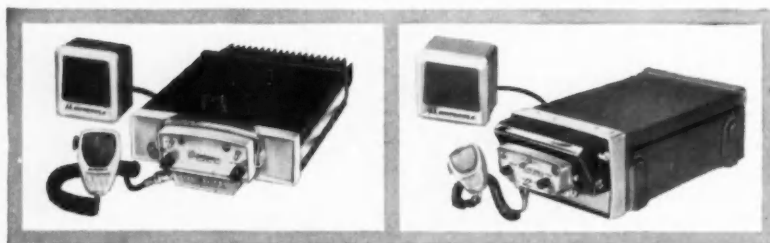
PUT THE INDUSTRY'S **NO. 1** SALESMAN TO WORK FOR YOU, TOO

MOTOROLA 2-WAY RADIO

You're selling just *one* thing—SERVICE. And with Motorola 2-way radio dispatching you can offer better, faster service . . . the type you can tell your customers about . . . the type of service they appreciate. Trucks are routed quickly . . . delivery promises are kept. Here's a real sales point to help you sell your trucking services. Thousands of applications prove that Motorola 2-way radio can move you "out front"—and keep you there.

Why *Motorola*? Because Motorola—the pioneer and leader—produces 2-way radio specifically designed for heavy-duty . . . day-in, day-out operation—equipment with more exclusive features, and proved in use to *outperform* and *outlast* all others. No wonder Motorola radio is specified more often than all other types combined.

It will only take a few minutes for you to learn how Motorola 2-way radio more than pays for itself as it makes sales for you. Write or phone today.



"MOTRAC" 2-way radio

Completely transistorized power supply and receiver for highest reliability, lowest current drain.

"T-POWER" 2-way radio

Completely transistorized power supply eliminates vibrator replacement problems.

Dual-Squelch "Private-Line" operation available in both models gives you "hear your message only" radio service.



MOTOROLA 2-WAY RADIO

Motorola Communications & Electronics, Inc., 4501 W. Augusta Blvd., Chicago 51, Ill. A Subsidiary of Motorola, Inc.

T-POWER and MOTRAC are Trademarks of Motorola, Inc.

**TOUGH
ENOUGH
TO ENDURE
A SLIDE
8½ TIMES
AROUND
THE
WORLD!***



You may say: "What's so wonderful about that—an engine bearing is supposed to have a lot of endurance." True, but how much is "a lot?" The answer to this question determines to a great extent the amount of mileage you can expect from a bearing.

Creating bearings that have a longer life span has always been a specialty of Clevite engineers. Many case reports show that Clevite 77 bearings have stayed on the job for as long as 300,000 traveled miles. No other fact we could present could better verify the high performance ability of Clevite 77 bearings.

Always use replacement engine bearings that you can install with confidence. Specify Monmouth Clevite 77. Get them from your N.A.P.A. jobber.

*By slide, we mean the action of a given point on the crankshaft traveling over the bearing surface. 300,000 vehicle miles result in a slide of 210,000 miles (8½ times around the world) when using a ratio of .7 to one.

Monmouth

ENGINE BEARINGS

CLEVITE SERVICE: Cleveland Graphite Bronze • Division of Clevite Corporation • Cleveland 3, Ohio



*The words Monmouth, Clevite and Micro are registered trade marks of Clevite Corporation



CHECK YOUR TUNE-UP

WILLYS

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
L-4	134.2	4	3 1/8 x 4 3/8
F-4	134.2	4	3 1/8 x 4 3/8
L-6	226.2	6	3 5/16 x 4 3/8

Oil Pressure

4-cyl engines... 35 psi @ 2000 rpm

6-cyl engines... 35 psi @ 1700 rpm

Compression Pressure

Engine

L-4	110 psi @ 160 rpm
F-4	125 psi @ 185 rpm
L-6	130 psi @ 140 rpm

IGNITION

Cam Angle (Dwell)

4-cyl engines	37-43 deg
6-cyl engines	36-42 deg

Breaker Point Gap

All engines .020 in.

Spark Occurs

(Degrees Before Top Center)

All engines 5 deg

SPARK PLUGS

Make & Type

All engines... AL A-7 or CH J-8

Size

All Engines 14 mm

Gap

All engines .030 in.

Two Cats to Travel



This 40 ft aluminum flatbed carries two D-8 Cats with ease. With a payload capacity of 50,000 lb, the trailer weighs 4000 lb less than similar steel rigs. It is built by the Williamsen Body and Equipment Co., Ogden, Utah, using high-strength aircraft alloys supplied by the Aluminum Company of America.

Torque

All engines 28-30 lb-ft

VALVES

Operating Tappet Clearance

Engine

L-4...

Inlet & Exhaust: .016 in.

F-4 Inlet: .018 in.

Exhaust: .016 in.

L-6...

Inlet & Exhaust: .014 in.

Seat Angle

L-4... Inlet & Exhaust: 45 deg

F-4... Inlet & Exhaust: 45 deg

L-6 Inlet: 30 deg

Exhaust: 45 deg

Face Angle

L-4, F-4...

Inlet & Exhaust: 44 deg

L-6 Inlet: 30 deg

Exhaust: 44 deg

TORQUE

Manifold Bolts

4-cyl engines	29-35 lb-ft
6-cyl engines	30-35 lb-ft

Cylinder Head Bolt

4-cyl engines	60-70 lb-ft
6-cyl engines	35-45 lb-ft

VALVE SPRINGS

Free Length

Engine

L-4...

Inlet & Exhaust: 2 1/2 in.

F-4 Inlet: 1 31/32 in.

Exhaust: 2 1/2 in.

L-6...

Inlet & Exhaust: 1 31/32 in.

Pressure

L-4	120 lb @ 1.75 in.
F-4	153 lb @ 1.40 in.
L-6	107 lb @ 1.312 in.

BATTERY

Amp-Hour Capacity

All models 50

COMMERCIAL CAR JOURNAL, April, 1959

Plates Per Cell

All models 9

Terminal Grounded

All models Neg

SAE Group

All models 2 SH

FRONT END**Tee-In**

All models047-.094 in.

Camber

DJ-3A, 4 x 2 models.. 1 deg

All others 1½ deg

Caster

All models 3 deg

King Pin Slant

All models 7½ deg

CAPACITIES**Crankcase**

L-4 4 qt

F-4 4 qt

L-6 5 qt

Transmission**Truck Model**

DJ-3A, F-4-134 (4x2)... 1½ pt

CJ series 3 pt

F-4-134 (4 wd & 4x4)... 3 pt

FC series 3 pt

L-6 series 2½ pt

Rear Axle

DJ-3A, F-134 (4x2)... 2 pt

CJ series, FC-150..... 2½ pt

All others 3 pt

Cooling System

DJ-3A, CJ series 11 qt

FC-150 10 qt

L-6 series 12 qt

All others 11 qt

LUBRICATION**Crankcase**

All models...Above 32 deg use SAE 30 or 10W-30. Not lower than 10 deg use SAE 20, 20W, 10W-30 or 10W-20. As low as

10 deg use SAE 20W, 10W-30 or 10W-20. As low as -10 deg use SAE 10W, 10W-30 or 10W-20. Below -10 deg use SAE 5W or 5W-20.

Transmission

All models...Use GL-4 type lubricant. In Summer use SAE 90, in Winter use SAE 80.

Rear Axle

All models...Use SAE 90 GL-4 type lubricant all year.

MODEL NUMBERS

Truck Model...FC-170—wheel house top panel, right. FC-150—wheel house top panel, left. On 4x4 and 4x2 models—floor pan riser, left. On 4WD—seat support pan, left. On CJ & DJ series—see dash panel.
Engine Model...L-4 & F-4—See front of block above water pump. L-6—See left of block below coil or at rear of oil filler tube.

There's a Kendall Lubricant for EVERY FLEET REQUIREMENT

**TAKE GEAR LUBES,**

for example...

KENDALL THREE STAR is the only all weather, all-purpose gear lube that meets requirements of SAE Grades 80, 90 and 140 in a single product. Simplifies inventory and lubrication.

KENDALL MULTI-PURPOSE HYPOID SCL—specially formulated to protect hypoid gears at high speeds under heavy loads; and Kendall NS-MP Hypoid Gear Lube, Kendall Tractor Gear Lubes and Kendall Open Gear Lubes.

All can cut down-time by providing extra wear protection. Contact your Kendall Distributor or the Refinery for details.

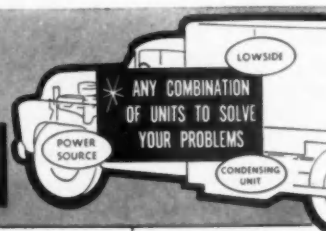
KENDALL REFINING COMPANY

Bradford, Penna.

Lubrication Specialists since 1881



KOLD-HOLD[®] TRUCK REFRIGERATION



MARK
mechanical

CROWN
hydraulic

RANCHERO
retail milk

CREST
packaged condensing unit

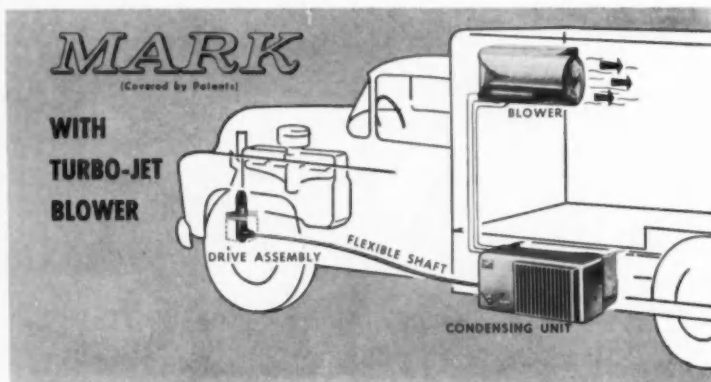
BLOWERS
hi and low temp

PLATES
quick action and hold-over

ALL THE REFRIGERATION YOU NEED... and more too!

The complete KOLD-HOLD line provides the right combination of drive, condensing unit and plates or blower to produce and maintain required body temperatures for each individual truck and type of service. You get all the cooling power needed without paying for more equipment than is required to do the job. KOLD-HOLD systems can be tailored to meet a variety of body temperatures (from -10 to +60 degrees), frequencies of door openings, lengths of routes and other requirements.

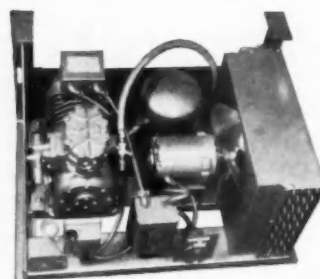
Your KOLD-HOLD representative is well qualified to help you with your specific truck refrigeration problems. Backed by KOLD-HOLD experience of over 25 years in engineered truck refrigeration and equipped with Ranchero demonstrators which can bring operating units to your door, he can show you how KOLD-HOLD systems will give you better product protection at lower overall cost.



This combination of the mechanically driven MARK condensing unit with a TURBO-JET blower produces exceptionally fast temperature recovery after door openings and is the ultimate in weight savings. It is recommended for milk, meat and any trucks which require temperatures from 40° to 60°.

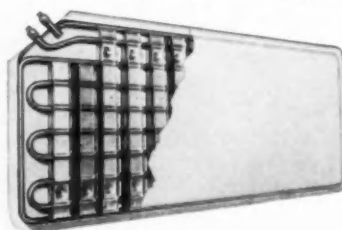
The flexible shaft drive is highly efficient and trouble free. In fact, the entire MARK unit has proven its efficiency, dependability and serviceability in thousands of trucks in the field. From its corrosion resistant finish to its aircraft-type base construction it was designed and built for rugged durability. Unique "Swing-Down" design permits fast, easy servicing. The unit is mounted on the chassis rail with brackets. No holes to drill. Condenser unit swings down to expose all parts. No special compartments are needed.

TURBO-JET blower design produces movement of more air through the coils and more effective air movement through the truck body than other blowers of comparable size for faster "pull down." It also features automatic defrost without temperature "upswing" during the defrost cycle.



A NEW COMPLETE-PACKAGE CONDENSING UNIT

The KOLD-HOLD CREST condensing unit was specifically designed for freezing "Hold-Over" plates in a parked truck on "stand-by" or over night. You simply plug it into an electrical outlet. Complete with cover and ready for mounting on the truck chassis rail, the unit eliminates the need for hand-building a special compartment or "dog-house" and provides economy and ease of installation. Its "slide-out" base unit makes servicing easy.



HOLD-OVER PLATES

These streamlined plates give maximum refrigeration through full eutectic capacity and exceptionally effective air flow. Internal fins spread heat absorption qualities over the entire surface areas on both sides of the plates. Patented perimeter freezing permits complete filling of the plates without danger of strain on the seams during freezing. You get more hold-over refrigeration with less weight.

WRITE TODAY FOR
FREE CATALOG NO. 58



KOLD-HOLD[®]
division

Tranter Manufacturing, inc.
230 E. Hazel St. Lansing 9, Michigan

COMMERCIAL CAR JOURNAL, April, 1959

NEW CP "LITTLE GIANT" AIR-WRENCH



6" shank model also available.

...packs the wallop
of wrenches
13 to 15 pounds heavier

Imagine a 1" drive 1 1/4" bolt capacity air wrench with "sock" like this:

— loosens and tightens toughest nuts — fast. Knocks rusted spring U-bolts off in seconds. Cuts Budd wheel work in half. You name it!

— the revolutionary CP VARI-TORK Power Converter lets you vary its power to meet exact torque requirements.

— easily handles hard-to-get-at jobs that big awkward wrenches can't reach. The exclusive CP LOK-ON ANGLE DRIVE gets into even tighter spots.

Imagine all this in an air wrench that is inches shorter than others of the same rating!

If you want to cut nut running time up to 75% — and make more money — arrange for a shop demonstration. Call your jobber or mail the coupon. Now's the time!

Revolutionary new Power Converter

The "LITTLE GIANTS" new VARI-TORK Power Converter is the most powerful, efficient, trouble-free mechanism ever built. Every ounce of motor output is converted into hard-hitting impact blows by the striking hammer's fly-wheel drive. No costly power loss, because there's no drag of centrifugal force to overcome, no springs to compress.

The "Little Giant" shown here has "dead" handle in alternate top position.



Chicago Pneumatic

AIR AND ELECTRIC IMPACT WRENCHES • BEAD BREAKERS
ZIP-GUNS • PNEU-DRAULIC TRUCK JACKS AND PUMPS

.....

CHICAGO PNEUMATIC TOOL COMPANY, Dept. A-12
8 East 44th Street, New York 17, N. Y.

☐ Send me complete information on the "LITTLE GIANT"

☐ Please arrange a FREE demonstration

Name _____

Address _____

Company _____

City _____ Zone _____ State _____

.....



CHECK YOUR TUNE-UP

FLXIBLE FLXIBLE-TWIN

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
FLXIBLE			
Fag FTC 200	451	6	4 $\frac{3}{8}$ x 5
GM 4-71	284	4	4 $\frac{1}{4}$ x 5
White 390 AD	531	6	4 $\frac{3}{4}$ x 5
GM 6-71 E	425.6	6	4 $\frac{1}{4}$ x 5
FLXIBLE-TWIN			
Fag FTC 180	404	6	4 $\frac{1}{4}$ x 4 $\frac{3}{4}$
Fag FTC 200	451	6	4 $\frac{3}{8}$ x 5

Oil Pressure

Engine

All Fageol engines... 45-55 psi @ 2400 rpm
 GM 4-71... 40 psi @ 2000 rpm
 GM 6-71E... 25 psi minimum
 White 390AD... 45-55 psi @ 2400 rpm

Compression Pressure

Engine

Fag FTC 180...160 psi @ cranking speed
 Fag FTC 200...155 psi @ 250 rpm
 GM 4-71...390 psi @ cranking speed

IGNITION

Cam Angle (Dwell)

All gas engines... 31-37 deg

Breaker Point Gap

All Fag engines... .018-.020 in.
 White 390 AD022 in.

Spark Occurs

(Degrees Before Top Center)

All Fag engines ... 2 deg
 White 390 AD ... 6 deg

SPARK PLUGS

Make & Type

All Fag engines ... CH J-5
 White 390 AD ... CH 6 Com

Size

All Fag engines ... 14 mm
 White 390 AD ... 18 mm

Gap

All Fag engines020 in.
 White 390 AD025 in.

VALVES

Operating Tappet Clearance

All Fag engines...Inlet: .015 in.
 Exhaust: .018 in.
 White 390 AD ... zero

Seat Angle

All Fag engines ... 45 deg
 White 390 AD ... 45 deg
 GM engines ... 30 deg

Face Angle

All Fag engines ... 45 deg
 White 390 AD ... 45 deg

TORQUE

Cylinder Head Bolt

All Fag engines... 85- 90 lb-ft
 GM engines ... 165-185 lb-ft

VALVE SPRINGS

Pressure

Valve Open

All Fag engines... 132-141 lb @ 1 5/16 in.
 White 390 AD... 175-185 lb @ 1.827 in.
 GM engines... 140 lb @ 1 51/64 in.

Valve Closed

All Fag engines... 64-71 lb @ 1 11/16 in.
 White 390 AD... 90-100 lb @ 2 1/4 in.
 GM engines... 44 lb @ 2 3/16 in.

BATTERY

Amp-Hour Capacity

Bus Model

All Flxible models ... 160
 All Flxible-Twin models... 175

Plates Per Cell

All models ... 17

Terminal Grounded

All models ... Pos

FRONT END

Toe-In

All Flxible models... 1/8 in.
 All Flxible-Twin models... 1/16-0 in.

Camber

All Flxible models... 1 1/2-2 deg
 All Flxible-Twin models... +1 - -1 deg

Caster

All Flxible models... 0 deg
 All Flxible-Twin models... 1 3/4-1 1/4 deg

King Pin Slant

All models ... 5 1/2 deg

CAPACITIES

Crankcase

All Fag engines.....	12 qt
White 390 AD	15 qt
GM engines	14 qt

Transmission

All Flxible models.....	13 pt
All Flxible-Twin models.	17 pt

Rear Axle

Bus Model

228 FI	20 pt
218 GMI	23 pt
FT-30, FT-33	23-31 pt
FT-35, FT-40	31-30 pt

Cooling System

Bus Model

228 FI	64 qt
218 GMI	58 qt
FT-30, FT-33	63 qt
FT-35, FT-40	66 qt

LUBRICATION

Crankcase

All Fag engines...Above 70 deg use SAE 40; Between 45 and 80 deg use SAE 30; Between 15 and 55 deg use SAE 20; Between 0 and 25 deg use SAE 10.

GM engines...Above 80 deg use SAE 30; Between 20 and 80 deg use SAE 20; Below 20 deg use SAE 10.

Transmission

All Flxible models...Use SAE 50 mineral oil all year.

All Flxible-Twin models... Use SAE 140 mineral oil in Summer, SAE 90 in Winter.

Rear Axle

All Flxible models...Use Military Spec 2-105-B all year.

All Flxible-Twin models... Use SAE 140 Extreme Pressure in Summer, 90 EP in Winter.

Steno Jo: "See that drunk over there. He's a truck fleet operator loaded with money."

Steno Flo: "So what? He'd be just as loaded without it."

COMMERCIAL CAR JOURNAL, April, 1959



No, It Can't Swim

This International isn't swimming. It's just fording the Animas river near Farmington, N. M., with a 500-barrel, 12-ft diameter fracturing tank. It was being delivered by Dowell, Inc., to a local oil producer. Where bridges weren't wide enough, the rig did the next best thing—took to the water like the proverbial duck.

Superior sealants insure superior repairs

PERMATEX SEALANTS HELP KEEP FLEETS ON THE ROAD LONGER

Just as all repair jobs are not alike... all sealants are NOT alike. Permatex tailors them to the job... gives fast or slow... hard or soft setting... with special properties as needed. Stock them *all* for best results, and keep vehicles rolling.

 <p>FORM-A-GASKET NO. 1 dries fast, sets up hard, for permanent assemblies. Withstands heat and pressure.</p>	 <p>FORM-A-GASKET NO. 2 dries slowly, remains pliable, for reassembly work. Permits connections to be taken apart.</p>	 <p>FORM-A-GASKET NO. 3 is brushable liquid, sets tacky, for lubricating close-fitting parts for easy assembly.</p>	 <p>GASKET CEMENT is extra heavy adhesive liquid, sets slowly. Has 5 times heat resistance of ordinary shellac.</p>
 <p>PIPE JOINT COMPOUND NO. 51 seals hot and cold water, steam, illuminating gas, fuel oils, kerosene, and lubricating oil.</p>	 <p>SUPER "300" FORM-A-GASKET sets slowly, is formulated to resist "washing" action of detergent additives.</p>	 <p>STICK-N-SEAL is tacky on application, sets quickly. Liquid synthetic rubber unaffected by gasoline and lubricants.</p>	 <p>INDIAN HEAD GASKET SHELLAC COMPOUND is carefully compounded, economical. For general assembly work.</p>

PERMATEX

...MADE FOR THE PROFESSIONAL!

PERMATEX

COMPANY INCORPORATED

300 Broadway, Huntington Station, L. I., N. Y.
Factories: Brooklyn, N. Y. • Kansas City, Kan.

Fleet Operators' Records Prove . . .

Rambler is the Smartest Buy

HERE'S WHY—

- **COSTS LESS TO BUY**—Rambler's retail delivered price is up to \$214 less than comparable models of the other leading low-priced cars.
- **COSTS LESS TO OPERATE**—Rambler can deliver up to 6 more miles per gallon on regular grade gas—a big saving over comparable cars.
- **COSTS LESS TO MAINTAIN**—Rambler maintenance has proved to be up to 25% less than other leading low-priced cars according to Fleet Operators' Reports.
- **HAS TOP RESALE VALUE**—Rambler has the outstanding resale value in the low-priced field as proved by the N.A.D.A. Official Used Car Guide and Red Book Market Reports.
- **USES LESS PARKING SPACE**—Rambler can be parked with ease in spaces that won't accommodate the average-size car.
- **TOPS IN MANEUVERABILITY**—Rambler is easiest of all leading low-priced cars to handle in traffic—makes U-turns in streets 3 to 4 feet too narrow for others.

EVERY MILE YOU DRIVE YOU SAVE WITH RAMBLER



RAMBLER 4-DOOR
SUPER SEDAN

FLEET LEASING ARRANGEMENTS AVAILABLE

If your firm leases fleet units, ask your leasing company for low Rambler rates or write us for the names of leasing companies with whom we have working arrangements.

To Have Representative Call With
Complete Information . . . No Obligation

WRITE OR WIRE

**FLEET SALES
AMERICAN MOTORS CORP.**

DETROIT 32, MICHIGAN

EberHARDWARE

is the answer to most questions

pertaining to vehicle hardware selection

SOME EXAMPLES

THE QUESTION

THE SUGGESTION

A BETTER JOB WITH (E)

What lock does the job on a refrigeration or big van body? It must be lockable for cargo protection and husky.

Modified EBER - "GRIP" - HARD Door Lock

No. 7-5625X

Ruggedly built with all cast malleable parts. Leverage assures easy closing and frost seal breakage upon opening.



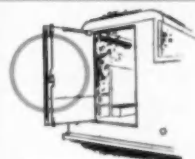
Is there a heavy panel body door lock with a slam-lock action and key locking facility which can be unlocked from the inside?



"SLAMTITE" DOOR LOCK

No. 5607

A long time popular item, inexpensive with multiple operational features. Fool-proof action assures locking by driver.



Can Eberhard offer anything in a School Bus door lock with added safety features?



No. 575782

SCHOOL BUS SAFETY DOOR CONTROL

Features a special plunger switch mounting pad for a step well light and front and rear flashers which operate when door is opened.



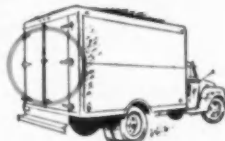
Does Eberhard make a rust resistant, light-weight door hinge with sufficient strength for average jobs?

A Permanent Mold ALUMINUM ALLOY 356-T6 (Heat Treated)



HINGE modern, streamlined design with desired weight saving feature without sacrifice of strength.

No. AL-6



What panel door locks can be used on latest design door construction which requires long clamp lugs?



No. 8-5628

Modified "CLAMPTITE" DOOR LOCK

A favorite among all truck body builders for more than 20 years. Comes with padlock loop.



Has Eberhard anything new in a flush type key locking compartment door lock?



FLUSH PADDLE HANDLE LOCK

With exclusive slam-locking feature even after key withdrawal. Universal, right or left hand mounting.

No. 4895



IF ADDITIONAL INFORMATION ON THESE OR OTHER EBERHARD ITEMS IS DESIRED, PLEASE WRITE FOR THE CATALOG.

LONGRUN



TRUCK BODY
HARDWARE BY

EBERHARD

THE MOST COMPLETE LINE AVAILABLE



**EBERHARD
MANUFACTURING
COMPANY**

EVARTS AVE. • CLEVELAND 4, OHIO

DIVISION OF THE
EASTERN MALLEABLE IRON COMPANY



CHECK YOUR TUNE-UP

GENERAL MOTORS

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
270	270	6	3 25/32 x 4
4-71	284	4	4 1/4 x 5
6-71	426	6	4 1/4 x 5

Oil Pressure

270	35-40 psi @ 1000 rpm
4-71, 6-71	25 psi minimum @ idling speed.

IGNITION

Cam Angle

270	28-35 deg
-----	-----------

Breaker Point Gap

270	.016 in.
-----	----------

Spark Occurs

(Degrees Before Top Center)	
270	5 deg

SPARK PLUGS

Make & Type

270	AC 44 Com
-----	-----------

Size

270	14 mm
-----	-------

Gap

270	.030 in.
-----	----------

Torque

270	15-20 lb-ft
-----	-------------

VALVES

Operating Tappet Clearance

270	Inlet: .012 in.
	Exhaust: .020 in.

4-71 (Hot)	.009 in.
6-71 (Hot)	.024 in.

Seat & Face Angle

270	Inlet & Exhaust: 30 deg
4-71, 6-71	30 deg

VALVE SPRINGS

Free Length

270	2 1/8 in.
4-71	2 3/8 in.
6-71	1.95 in.

Pressure

(Valve Open)	
270	124 -140 lb
4-71, 6-71	84 1/2- 89 1/2 lb

BATTERY

Amp-Hour Capacity

TGH 3102	150
PD 4104	205
Others	175

Plates Per Cell

TGH 3102	19
PD 4104	27
Others	17

Terminal Grounded

All models	Pos
------------	-----

SAE Group

TGH 3102	4D
----------	----

PD 4104	8D
Others	8G

FRONT END

Tee-In

All models	1/16-1/8
------------	----------

Camber

All models	1 deg
------------	-------

Caster

TGH 3102	4 deg
Others	3 deg

King Pin Slant

TGH 3102	8 1/2 deg
Others	8 deg

CAPACITIES

Crankcase

TGH 3102	8 qt
TDH 3174	21 qt
PD 4104	29 qt
Others	26 qt

Transmission

TGH 3102	23 pt
TDH series	56 pt
TDM series	11 pt
PD 4104	21 pt

Rear Axle

TGH 3102	9 1/4 pt
TDH 3714, 4512	20 pt
TDM 4515	20 pt
TDH 5105, 5106	26 pt
TDM 5108	26 pt
PD 4104	18 pt

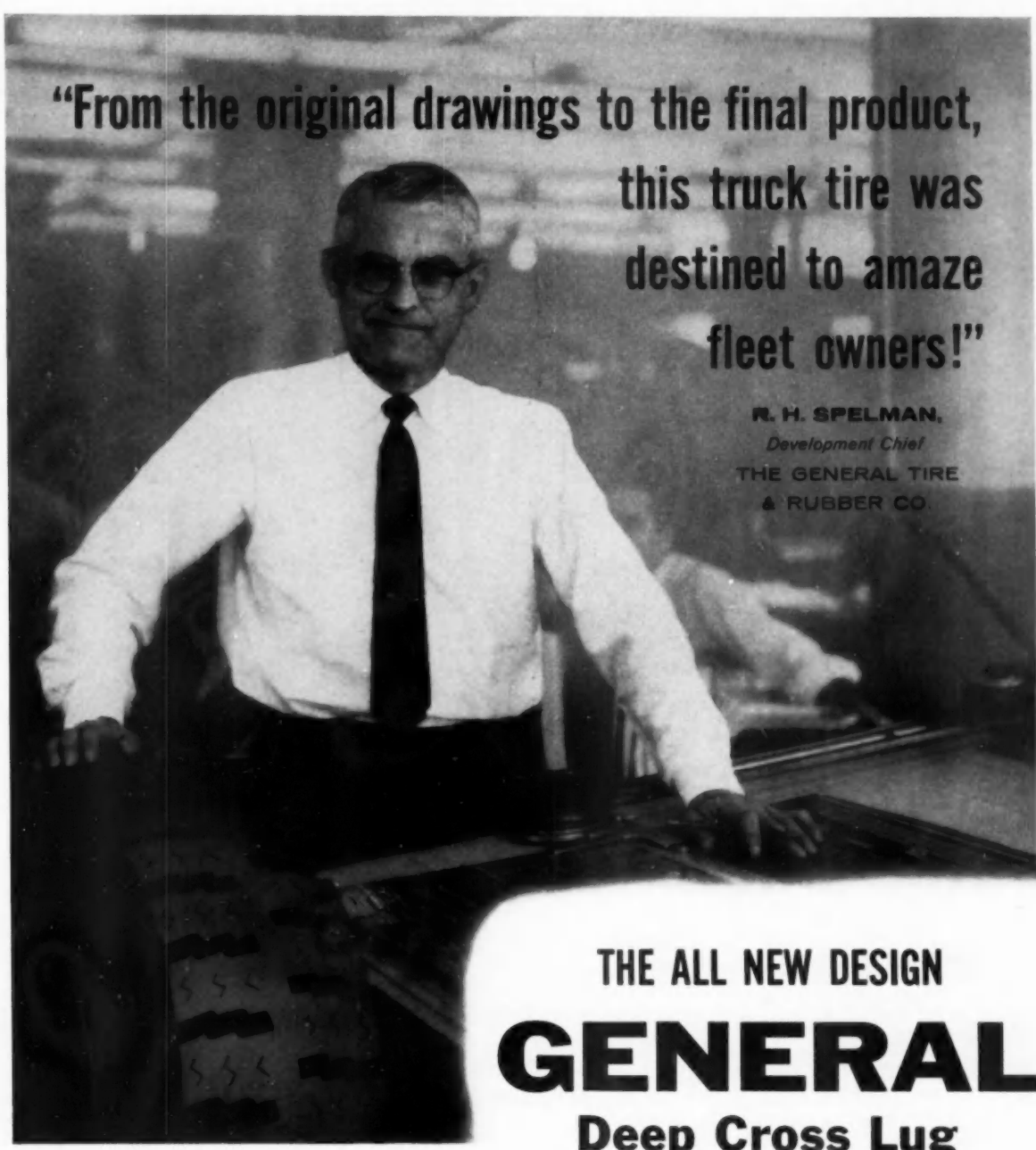
Cooling System

TGH 3102	28 qt
TDH 3714	61 qt
PD 4104	73 1/2 qt
Others	72 qt

LUBRICATION

Crankcase

270...	Above 90 deg use SAE 30;
	Between 32 and 90 deg use SAE 20;
	Between -10 and 60 deg use SAE 10W;
	Below -10 deg use SAE 5W.
4-71, 6-71...	Above 60 deg use SAE 30;
	Between -10 deg and 60 deg use SAE 20W;
	Below -10 deg use SAE 10W.



**"From the original drawings to the final product,
this truck tire was
destined to amaze
fleet owners!"**

R. H. SPELMAN,
Development Chief
**THE GENERAL TIRE
& RUBBER CO.**

THE ALL NEW DESIGN
GENERAL
Deep Cross Lug

**BUILT WITH
NYGEN®...**

*engineered to deliver loads of
low cost mileage*

Everything you've ever wanted in a long-haul truck tire . . . strength, safety and mileage beyond all comparison . . . is yours when you set your fleet up on the new General D. C. L. Offering 60% more tread on an exclusive Nygen casing, the General D. C. L. combines the best features of rib-type and cross-lug tread designs to give you the greatest, longest-running tire on the road. Positive proof of performance is available and awaiting your call.

THE GENERAL TIRE & RUBBER COMPANY • Akron, Ohio

COMMERCIAL CAR JOURNAL, April, 1959

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5



WAYS TO CUT FUELING COSTS WITH BENNETT FLEETMASTER PUMPS

- 1 — Cut record keeping costs through accurate control of operating costs and fuel inventories.
- 2 — Printed record of fuel used by each vehicle ends waste and possible pilferage.
- 3 — Fast Fleetmaster fueling saves time, cuts labor costs.
- 4 — Individual printed tickets indicate vehicle fuel consumption and point out need for preventive maintenance.
- 5 — Sturdy construction and Bennett traditional gasoline pump quality assure exceptionally accurate and dependable operation at lowest maintenance cost.

Available with Register and Totalizer
in place of Ticket Printer. Remote Control
and Heavy-duty models available.

JOHN WOOD COMPANY

BENNETT PUMP DIVISION • MUSKEGON, MICHIGAN

IN CANADA: JOHN WOOD COMPANY LIMITED • Toronto • Montreal • Winnipeg • Vancouver

*Traditional
Bennett
Quality*



OSHKOSH 4-WHEEL DRIVE "50-50" CONCRETE CARRIER

Really Performs!



Power, 4-wheel traction, stamina — plus easy maneuverability — make the Oshkosh 50-50 your best buy in a ready-mix concrete carrier.



Oshkosh 50-50 hub deep in soft sand at the "Country Club Estates" — a new subdivision adjacent to City of Coronado. Tough going for most rigs — easy for Oshkosh!



It's hard to believe—but the 4-wheel drive Oshkosh 50-50, with 18,000 lb. payload on each axle, pulls through soft sand quickly and easily . . . spots loads anywhere!

SAYS

**SAN DIEGO
TRANSIT-MIXED CONCRETE CO.**
SAN DIEGO 3, CALIFORNIA

Gentlemen:

Your Oshkosh rig really performed. Our others needed planking to do anything, even on relatively firm sand. The Oshkosh 50-50 needed no planking. While it sank down in the soft sand, it never stopped even once.

JOB: "Country Club Estates", new subdivision, City of Coronado, adjacent to North Island, deep sand everywhere.

GENERAL CONTRACTOR: BOSWELL
CONSTRUCTION CO., SAN DIEGO

CONCRETE CONTRACTOR: HARBOR
KEN STOCKWELL CO., SAN DIEGO.

CONCRETE: SAN DIEGO TRANSIT-MIXED
CONCRETE CO.

Greater payloads! Better traction! More maneuverability! . . . good reasons to choose Oshkosh

Here's the truck specifically engineered and built for the ready-mix concrete industry — backed by over 39 years' experience in manufacturing 4-wheel drive trucks for on-and-off highway hauling. With 18,000 lbs. payload on each axle, the Oshkosh 50-50 lets you spot load where other concrete carriers can't go . . . to get jobs competition can't handle. Write for full information today!

OSHKOSH

**4 WHEEL
and
6 DRIVE
TRUCKS**

OSHKOSH MOTOR TRUCK, INC.
OSHKOSH WISCONSIN



CHECK YOUR TUNE-UP

SOUTHERN

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
Fag-Ley FLDH-600	597	6	4 13/16 x 5 1/2
Fag-Ley FLDH-680	677	6	5 x 5 3/4
Fag FTC-180	404	6	4 1/4 x 4 3/4
Cum NHHB-600	743	6	5 1/8 x 6
Wau 6MZA	404	6	4 1/4 x 4 3/4

Oil Pressure

Engine	Size
Fag-Ley FLDH-600...	60-70 lb @ 2100 rpm
Fag-Ley FLDH-680...	70 lb @ 1800 rpm
Fag FTC-180...	45 lb @ 2100 rpm
Cum NHHB-600...	30-50 lb @ 2100 rpm
Wau 6MZA...	40 lb @ 1500 rpm

Compression Pressure

Fag-Ley FLDH-600, FLDH-680...	450-475 psi @ 300 rpm with engine cold.
Fag FTC-180...	160 psi @ 250 rpm
Wau 6MZA...	105 psi @ cranking speed.

IGNITION

Cam Angle (Dwell)

Engine	Size
Fag FTC-180	35 deg
Wau 6MZA	31-37 deg

Breaker Point Gap

Fag FTC-180	.022 in.
Wau 6MZA	.018 in.

Spark Occurs

Fag FTC-180...	Top Dead Center
Wau 6MZA...	4 deg before TDC

SPARK PLUGS

Make & Type

Engine	Size
Fag FTC-180...	CH J5
Wau 6MZA...	CH 8 Com

Face Angle

Fag-Ley engines	29 1/2 deg
Fag FTC-180	45 deg
Cum NHHB-600	30 deg

TORQUE

Cylinder Head Bolt

Fag-Ley engines	155-160 lb-ft
Fag FTC-180	60-65 lb-ft
Cum NHHB-600	450 lb-ft
Wau 6MZA	75 lb-ft

VALVE SPRINGS

Valve Open Length

Fag-Ley engines	Inner: 1.230 in.
	@ 134 lb pressure; Outer: 1.481 in. @ 134 lb pressure.
Fag FTC-180...	1 5/16 in. @ 132-141 lb
Cum NHHB-600...	1 27/32 in. @ 104-114 lb.
Wau 6MZA...	1 21/32 in. @ 101 lb

Valve Closed Length

Fag-Ley engines	Inner: 1.731 in.
	Outer: 1.981 in.
Fag FTC-180...	1 11/16 in. @ 64-71 lb
Cum NHHB-600...	2 1/4 in. @ 74-82 lb
Wau 6MZA...	2 11/32 in. @ 64 lb

BATTERY

Amp-Hour Capacity

Bus	Size
S-45-DHC	200
All others	168

Plates Per Cell

Bus	Size
S-45-DHC	25
All others	21

Adjustable Stake Body

An adjustable metal stake body that fits most makes and models of 1/2 and 3/4 ton pickup trucks has been added to the '59 line of truck accessories offered by Chevrolet dealers. Called the Pak-Rak, the unit gives pickups greater load carrying space.



Terminal Grounded

All models Pos

FRONT END

Toe-In

All models $\frac{1}{8}$ -1/16 in.

Camber

All models 1½ deg

Caster

All models 1 deg

King Pin Slant

All models 5½ deg

CAPACITIES

Crankcase

Fag-Ley engines 26 qt

Fag FTC-180 12 qt

Cum NHHB-600 32 qt

Wau 6MZA 15 qt

Transmission

Capacity given is for mechanical section of hydraulic transmission only.

Bus

S-45-DHC 6 pt

All others 3½ pt

Rear Axle

S-36 23 pt

S-41 31 pt

S-45 30 pt

Cooling System

S-45-DHC 84 qt

All others 72 qt



"Worst traffic jam I've seen in a long time."

COMMERCIAL CAR JOURNAL, April, 1959

LUBRICATION

Crankcase

Wau 6MZA...Above 70 deg use SAE 40W; Between 50 and 70 deg use SAE 30W; Between 30 and 50 deg use SAE 20W; Below 30 deg use SAE 10W.

Cum NHHB-600...Above 80 deg use SAE 30W; Between 20 and 80 deg use SAE 20W; Below 20 deg use SAE 10W.

All others...Between 50 and 70 deg use SAE 30W; Between 30 and 50 deg use SAE 20W; Below 30 deg use SAE 10W.

Transmission

All models...Use SAE 50 in mechanical section of hydraulic transmissions.

Rear Axle

All models...SAE 140 hypoid gear lube.

CIRCO's exclusive "Magicoil"

the most outstanding development in steam cleaners in 50 years...



builds shop profits

Watch shop profits grow when you install a "Magicoil" Circo Steam Cleaner. "Magicoil" virtually eliminates "down-time," coil-failure, to help you build shop profits - fast! Only Circo has "Magicoil."

Bulletins detail facts about Circo degreasers, agitating washers, and other shop equipment. Yours for the asking.

Ten separate coils, assembled as a single unit. Each coil can be easily removed and replaced — without costly shut-downs. Unit operates at 100% efficiency with only seven coils in use. No need for your Circo cleaner to be idle. Cleaning compound is injected after steam leaves "Magicoil." Coil life is considerably extended because chemical residue does not remain in the coil to encourage corrosion, rust and plugging.

Insist on Circo — and choose from the complete line of performance - proven equipment. Ask your jobber for complete "profit - building" details or write:

SINCE 1923

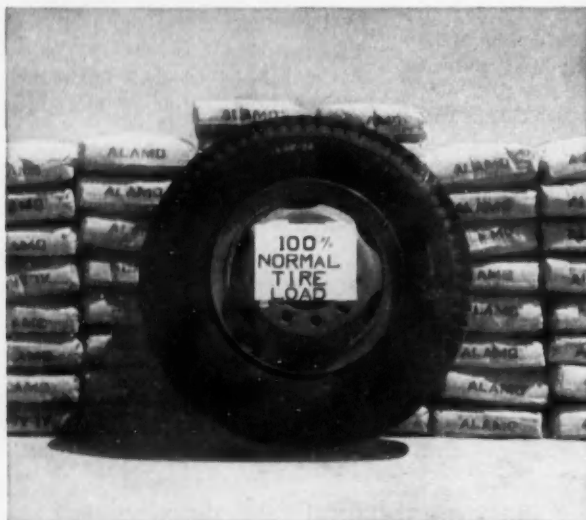
CIRCO

EQUIPMENT COMPANY

"Headquarters for automotive cleaning equipment"

51 TERMINAL AVENUE, CLARK, NEW JERSEY

MORE TIRE POWER MEANS



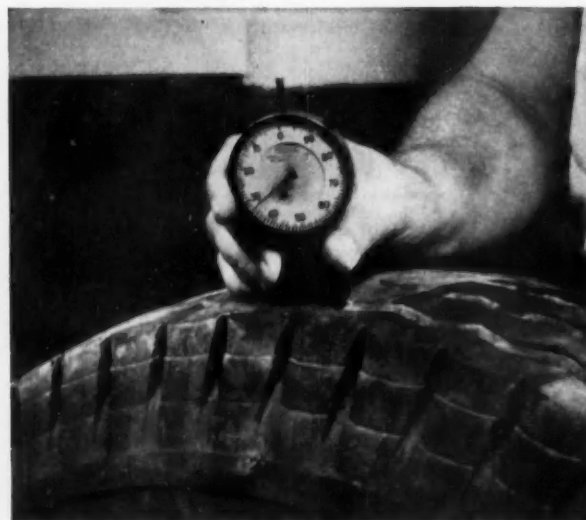
START WITH AN OVERLOAD

The illustration above shows a 100% load based on Tire and Rim Standards. In an independent test, trucks equipped with nylon tires and tires containing TYREX viscose cord started with 120% loads . . . and went up from there!



ADD INTENSE HEAT

Tire and roadbed temperatures were checked carefully. Under the blazing Texas sun, road temperatures soared to 139°. Tires made with TYREX viscose tire cord more than adequately met these adverse temperature conditions.



...BUT TYREX CAN AND DID!

When the testing was completed, careful measurements of all the tires showed: the rate of tread wear of 10 ply tires made with TYREX viscose tire cord was up to 21.7% better than 12 ply tires made with nylon.



TIRES MADE CORD DELIVER UP TO 21.7%

Get more tire power . . . more profits . . . less downtime.
Specify tires made with TYREX viscose tire cord.

LESS TREAD WEAR!



THEN PILE ON MORE WEIGHT

Tires containing TYREX viscose tire cord traveled over 20,000 miles at up to 40% overloads without any failures. Then the overload was upped to 50% above Tire and Rim Standards.



SOME CAN'T TAKE IT

Before the test ended some tires had failed from separation... could not be used or recapped. Tires containing TYREX viscose cord went on to 30,000 miles... still had tread left and were recappable.



WITH TYREX VISCOSE TIRE BETTER TREAD WEAR!

TYREX INC., EMPIRE STATE BLDG., NEW YORK 1, N. Y.

**TYREX is a certification mark of Tyrex Inc., for viscose tire cord and yarn.
Tyrex viscose tire cord and yarn are also produced and available in Canada.*



CHECK YOUR TUNE-UP

ALLIS CHALMERS

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
4 B-153	153.1	4	3 7/16 x 4 1/8
4 B-182	182.0	4	3 3/4 x 4 1/8
6 B-230	229.7	6	3 7/16 x 4 1/8
6 B-273	273.0	6	3 3/4 x 4 1/8
6 PC-1879, 6 PCS-1879	1879.0	6	6 3/4 x 8 3/4
8 PC-2505, 8 PCS-2505	2505.0	8	6 3/4 x 8 3/4
6 DA-779	779.0	6	5 1/4 x 6
6 DA-844, 6 DAS-844	844.0	6	5 1/4 x 6 1/2
6 DA-970	970.0	6	5 5/8 x 6 1/2
8 DA-1125, 8 DAS-1125	1125.0	8	5 1/4 x 6 1/2
8 DA-1290	1290.0	8	5 5/8 x 6 1/2

Oil Pressure

6 B-230... 20 psi @ 1600 rpm
 6 B-273... 20 psi @ 1800 rpm
 6 PC, 8 PC, 6 PCS, 8 PCS... 50 psi @ governed speed
 6 DA, 8 DA, 6 DAS, 8 DAS... 40 psi @ 1400 rpm

IGNITION

Breaker Point Gap

All gasoline engines... .018-.024 in.

Spark Occurs

All gasoline engines... Mark on flywheel

SPARK PLUGS

Make & Type

All gasoline engines... CH J-11

Size

All gasoline engines... 14 mm

Gap

All gasoline engines... .025 in.

Torque

All gasoline engines... 30 lb-ft

VALVES

Operating Tappet Clearance (Hot unless noted)

4 B & 6 B series... Inlet: .010 in.
 Exhaust: .012 in.

Turnpike Tunnel Cleaner



The Pennsylvania Turnpike is now using a new tunnel cleaning truck to wash down the road's eight tunnels. The new unit enables a two-man crew to wash walls and ceilings and flush the roadway in about 15 minutes. Previous tunnel cleaning techniques took three men with fire hoses 16 hours per tunnel to do the job. The new washer, purchased at a cost of \$28,800, carries 2500 gal of water and is equipped to double as a fire truck.

6 PC & 8 PC, 6 PCS & 8 PCS series... Inlet & Exhaust:

.018 in.

All diesels (with water temperature @ 160 deg)... Inlet: .012 in.; Exhaust: .015 in.

Seat Angle

All models...

Inlet & Exhaust: 45 deg

TORQUE

Cylinder Head Bolt

4 B & 6 B series...

95-105 lb-ft

PC & PCS series...

5/8 in. thread: 190-200 lb-ft

7/8 in. thread: 425-450 lb-ft

All diesels...

5/8 in. thread: 190-200 lb-ft

7/8 in. thread: 385-395 lb-ft

VALVE SPRINGS

Free Length

4 B & 6 B series... 2 3/32 in.

PC & PCS series... 4 9/32 in.

All diesels... 3 1/4 in.

Pressure

4 B & 6 B series...

122-131 lb @ 1 13/32 in.

PC & PCS series...

160-165 lb @ 2 31/32 in.

All diesels...

200-210 lb @ 2 13/64 in.

CAPACITIES

Crankcase

4 B-153 & 182... 5 qt

6 B-230 & 273... 6 qt

6 PC & PCS-1879...

Pan: 44 qt

Base: 92 qt

8 PC & PCS... 120 qt

6-cyl diesels...

Highway models... 24 qt

Off-highway models: 28 qt

8-cyl diesels...

Highway models: 30 qt

Off-highway models: 34 qt

LUBRICATION

Crankcase

All engines... Above 90 deg use SAE 40; Between 32 and 90 deg use SAE 30; Below 32 deg use SAE 20.

8106B Trutest
Special Gauge checks
all other gauges.

7106BH
All-Purpose
Service Gauge.

3650 Type
Chuck Gauge.

880
Valve Cap

4800
Valve Core

**Good fleet shop practice
pays off with
GENUINE
SCHRADER
TIRE GAUGES AND
AIR SERVICE**

Flat-catching shop practices are economical, simple, and especially effective for fleets, where time is money. Take these three steps:

- 1 Gauge and record air pressures each day with Schrader Service Gauges. Seal air in with Schrader Caps and Cores.**
- 2 Watch for unusual pressure drops, and fix tires before they go flat.**
- 3 Certify the accuracy of your "every day" gauging-inflating equipment with Schrader 8106B Trutest Special Gauge.**

And, remember, Schrader Chucks, Couplers, Chuck Gauges and Accessories help airlines operate faster and better. Specify genuine Schrader Tire Valves, Cores and Sealing Caps which are guaranteed airtight even at 250 pounds pressure. Profit with complete air service.

A. SCHRADER'S SON • BROOKLYN 38, N. Y.
Division of Scovill Manufacturing Company, Incorporated

Schrader
a division of **SCOVILL**

FIRST NAME IN TIRE VALVES
FOR ORIGINAL EQUIPMENT AND REPLACEMENT



CHECK YOUR TUNE-UP

CONTINENTAL

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
F4124	124	4	3 3/16 x 4 3/8
F4162	162	4	3 7/16 x 4 3/8
F6186	186	6	3 x 4 3/8
F6209	209	6	3 3/16 x 4 3/8
F6226	226	6	3 5/16 x 4 3/8
M6271	271	6	3 5/8 x 4 3/8
M6290	290	6	3 3/4 x 4 3/8
K6330	330	6	4 x 4 3/8
M6330	330	6	4 x 4 3/8
B6371	371	6	4 1/8 x 4 5/8
T6371	371	6	4 1/8 x 4 5/8
B6427	427	6	4 3/16 x 4 7/8
T6427	427	6	4 5/16 x 4 7/8
U6501	501	6	4 1/2 x 5 1/4
R6513	513	6	4 1/2 x 5 3/8
R6572	572	6	4 3/4 x 5 3/8
R6602	602	6	4 7/8 x 5 3/8
V8603	603	8	4 3/4 x 4 1/4
S6749	749	6	5 3/8 x 5 1/2
S6820	820	6	5 3/8 x 5 1/2
Diesels			
SD6802	802	6	5 9/16 x 5 1/2
TD6427	427	6	4 5/16 x 4 7/8
RD6572	572	6	4 3/4 x 5 3/8
VD8603	603	8	4 3/4 x 4 1/4

Oil Pressure

F6226	30-40 psi
Other F-series	35-40 psi
B, K & M series	40-50 psi
T series	40-60 psi
R, S & U series	55-65 psi
V8603.....50 psi @ 3000 rpm	
SD6802	55-65 psi
TD6427	40-50 psi
RD6572	40-60 psi
VD8603.....50 psi @ 3000 rpm	

Compression Pressure

(At cranking speed)

R, S & U series	120 psi
Other gasoline engines	115 psi
Diesels	375 psi

SPARK PLUGS

Size

V8603	14 mm
All others	18 mm

Gap

All models	.025 in.
------------	----------

VALVES

Operating Tappet Clearance

F series	Inlet: .014 in. Exhaust: .014 in.
M series	Inlet: .017 in. Exhaust: .020 in.

K & T series	Inlet: .018 in. Exhaust: .022 in.
B series	Inlet: .017 in. Exhaust: .022 in.
U6501	Inlet: .016 in. Exhaust: .024 in.
R series	Inlet: .018 in. Exhaust: .024 in.
S series	Inlet: .020 in. Exhaust: .024 in.
V8603	Inlet: .020 in. Exhaust: .028 in.
RD6572	Inlet: .020 in. Exhaust: .024 in.
SD6802	Inlet: .020 in. Exhaust: .024 in.
TD6427	Inlet: .018 in. Exhaust: .022 in.
VD8603	Inlet: .022 in. Exhaust: .024 in.

VALVE SPRINGS

Pressure

(Valve Open)

F4124, F4162...

100 lb @ 1 27/64 in.

Other F series...

103-110 lb @ 1 1/8 in.

M series119 lb @ 1.521 in.

B series144 lb @ 1.316 in.

T series...

Inner: 61 lb @ 1.016 in.

Outer: 130 lb @ 1.110 in.

R6513, R6602...

Inner: 90 lb @ 1.367 in.

Outer: 160 lb @ 1.617 in.

R6572173 lb @ 1.750 in.

S series...

Inner: 100 lb @ 2.031 in.

Outer: 200 lb @ 2.188 in.

V8603...

Inner: 120 lb @ 1.359 in.

Outer: 179 lb @ 1.609 in.

SD6802204 lb @ 2.063 in.

TD6427...

Inner: 100 lb @ 2.031 in.

Outer: 130 lb @ 1.110 in.

Inner: 61 lb @ 1.016 in.

RD6572173 lb @ 1.750 in.

VD8603185 lb @ 1.688 in.

TORQUE

Cylinder Head Bolt

V8603, VD8603100-110 lb-ft

All others...

3/8 in. thread: 35- 40 lb-ft

7/16 in. thread: 70- 75 lb-ft

1/2 in. thread: 90-100 lb-ft

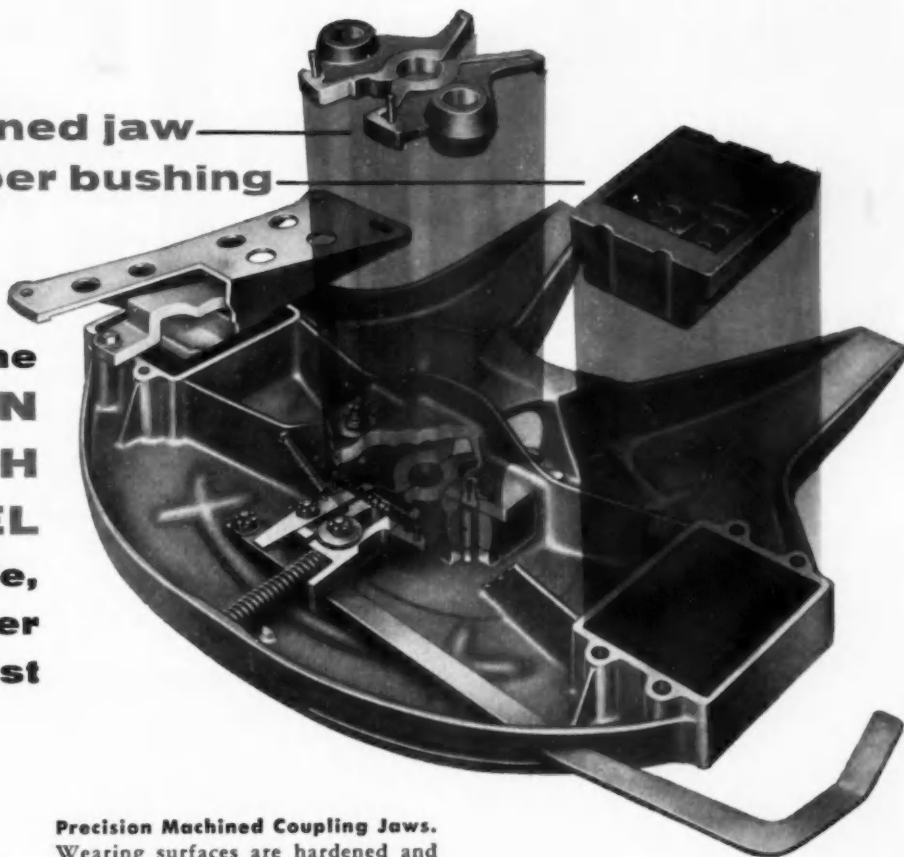
9/16 in. thread: 130-140 lb-ft

5/8 in. thread: 145-155 lb-ft

2 Major Advances in Fifth Wheel Design!

a machined jaw
and rubber bushing

give the
**DAYTON
FIFTH
WHEEL**
longer life,
lower
service cost



NEW! DAYTON SLIDING FIFTH WHEEL

Light weight. 28" adjustment. Minimum Maintenance. Write for free catalog.

Precision Machined Coupling Jaws.

Wearing surfaces are hardened and ground to exacting specifications to guarantee longer life . . . lower maintenance cost . . . greater safety! 360° locking surface around the king pin.

Rubber Compression Bushing. Combines bushing and shock absorbers into one simplified unit. Requires no greasing. Eliminates wear and reduces replacement cost normally present when a less desirable metal-to-metal bushing is used.

Light Weight . . . up to 50 pounds lighter than other models, easy to operate. One-operation locking device prevents accidental unlocking. Simplest locking device yet developed!

Better Lubrication. Pressure grease fittings on jaw pins and base are factory assembled. Moving parts are lubricated with corrosion-resistant grease.

Make sure you get the best and safest made . . . specify Dayton Fifth Wheels on original equipment and replacement.

Buying a truck or trailer? Make sure it's equipped with Dayton Light Weight Cast Steel Wheel and Brake Drum Assemblies—used by 21 of the nation's leading truck and trailer manufacturers.



DAYTON FIFTH WHEELS



by The Dayton Steel Foundry Co. • P.O. Box 1022, Dayton 1, Ohio

World's leading manufacturer of cast wheels and brake drums

Custom
Design
Opportunity
No. 2

THE

E68



One of six custom design opportunities offered by new **CID** SERIES '60

In terms of value, the C-68 is the hottest trailer on the market today. For here for the first time are all the "expensive" trailer features in a unit that is priced surprisingly low. For example . . . the C-68 features a new quarter panel that eliminates leakage . . . a new horizontally corrugated side panel that cuts weight while adding strength . . . a new connector case that simplifies interchange . . . a new unitized prop design that eliminates binding . . . and a dramatically improved tandem that cuts weight and upgrades over-the-road performance.

And in this lightweight all-aluminum van there are new and exciting payload possibilities. Inside height is 96". Inside width is 93". And thanks to a new under-frame (with a 4" upper fifth wheel) you get the singular advantages of straight floor loading in a cargo space that is 100% functional.

We invite you to compare the C-68 with any van in its price class — and with some costing considerably more. We think you'll be convinced.

And remember, the C-68 is just one of six basic custom design opportunities with CID Series '60.

TR-761

• Customer Individualized Design



TRAILMOBILE INC.

Cincinnati 9, Ohio • Springfield, Mo. • Longview, Texas • Berkeley 10, Calif.

NEW WIRING SYSTEM

The only wiring system that can be serviced with the trailer fully loaded now includes a new connector case that provides both 7-way and 6-way plugs, plus new quick-connecting terminals to simplify interchange when electrical connections do not match.

NEW TANDEM

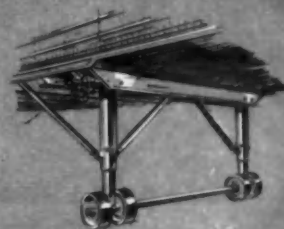
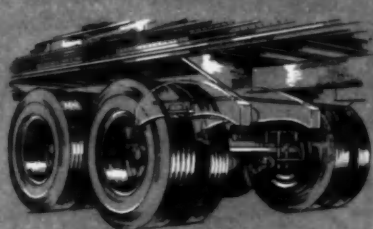
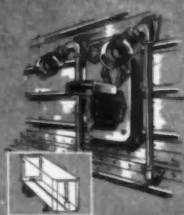
Here is the matchless Trailmobile tandem in an updated model that is lighter by hundreds of pounds. Newly designed rocker beams, a new, more stable 9-leave spring, and direct mounting of tandem to sub frame substantially reduce weight without sacrifice of strength.

NEW QUARTER PANEL

This is a husky aluminum extrusion which allows the roof fastenings to be moved to the outside of the trailer to eliminate the problem of leakage at all fastening points along front and sides. It also permits the roof sheets to be riveted.

NEW LANDING GEAR

This new unitized design brings you strength, light weight and perfect alignment in an easier-to-operate prop. A full 17" travel assures proper coupling under any ground condition. In addition, a positive locking feature prevents gears from disengaging while cranking.





CHECK YOUR TUNE-UP

CUMMINS

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
J series	401	6	4 $\frac{1}{8}$ x 5
HRC-4, NHC-4	495.4	4	5 $\frac{1}{8}$ x 6
H-6, HS-6	672	6	4 $\frac{7}{8}$ x 6
HR series	743	6	5 $\frac{1}{8}$ x 6
N series	743	6	5 $\frac{1}{8}$ x 6

Oil Pressure

J series...30-60 psi @ governed speed
All others...30-50 psi @ governed speed

VALVES

Operating Tappet Clearance

(With oil temperature @ 140 deg)

J seriesInlet: .015 in.
Exhaust: .025 in.
HRS, HSInlet: .016 in.
Exhaust: .028 in.

H, HR, HRCInlet: 0.14 in.

Exhaust: .022 in.

HRBBInlet: .014 in.

Exhaust: .022 in.

N seriesInlet: .014 in.

Exhaust: .027 in.

Seat Angle

All modelsInlet: 30 deg
Exhaust: 30 deg

Face Angle

All models 30 deg

TORQUE

Cylinder Head Bolt

J series 11/16: 280-300 lb-ft
3/4: 380-400 lb-ft
All others 430-450 lb-ft

VALVE SPRINGS

Free Length

J, JF, JS 2.944 in.
JN, JS, JT 2.539 in.
H series 3.484 in.
N series 3.313 in.

Pressure

J, JF, JS187 lb @ 2.0 in.
JN, JS, JT....122 lb @ 1.673 in.
H series...
179.5-198.5 lb @ 2 3/16 in.
N series...
104-114 lb @ 1 27/32 in.

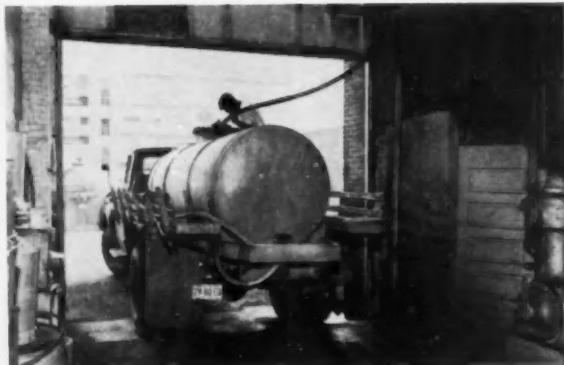
CAPACITIES

Crankcase

Cummins JT-6 16 qt
Others 28 qt

LUBRICATION

All models...Above 90 deg use
SAE 30; Between 32 and 90
deg use SAE 20; Below 32
deg use SAE 10W.



Hypalon Lining for Acid Tankers

Chesapeake Chemical Co. hauls sodium hypochlorite bleach made in its Baltimore, Md., plant to its customers in a tri-state area. Corrosion and rust were the big problems using metal tanks. Plastic tank linings wouldn't stand up. Concrete lined tanks worked well but weighed too much. Company is now using Hypalon synthetic rubber tank linings made by DuPont. Each tanker hauls about 200,000 gallons of the bleach solution annually. Tanks require cleaning and inspection only once a year. Tank lining job was done by Rubber Millers, Inc., Baltimore, Md.

The sole reason for the existence of the retreading industry is to decrease the cost per tire mile . . .

BANDAG COLD PROCESS TOPCAPPING CAN CUT YOUR RETREAD COST PER MILE BY AT LEAST 25 %!

LEE WAY MOTOR FREIGHT, INC.

GENERAL OFFICE
POST OFFICE BOX 2484
OKLAHOMA CITY 5, OKLA.

Bandag Incorporated
1056 Hershey Avenue
Muscatine, Iowa

Gentlemen:

I know that you will be interested to learn of the experience we have had to date with tires retapped by your Bandag method.

As your records will show we started our test May 8 of this year. Since that time we have purchased ninety three (93) Bandag recaps -- all of which are running on Mack and White diesels on the drive axle.

At this writing some of the tires have gone over 35,000 miles. When new the tread depth was 16/32. At present it is 11/32 or actually less than one-third worn at 35,000 miles. At this rate we can expect over 100,000 miles on these Bandag recaps.

Indications as of now are that we can get comparable performance from the rest of the tires.

Failures have been negligible. We had one splice open up and on that tire one half of the tread peeled. Another tread is loose; however, in neither instance has the carcass been damaged and we are preparing, as of now, to replace the tread.

It is a pleasure to give you this report. If you can use it in any way in furthering the sale of Bandag, please feel free to do so.

Yours very truly,
LEE WAY MOTOR FREIGHT, INC.

James C. Gay
James C. Gay
Tire Control

READ WHAT THESE **bandag** USERS SAY:

- "... this indicates a 3/32 tread wear at 27,000 miles which I consider phenomenal in this particular service. Our customary life of conventional recaps average about 35,000 miles. In my opinion, barring any other injury, these Bandag recaps will have a potential life of 90,000 miles or better."
- "... we should expect at least 75,000 miles which compares with about 40,000 miles we would get with other type recaps."
- "... The mileage delivered per 1/32 tread wear to date is about double any other cap we are running. They are about 1/2 worn down and have run approximately 60,000 miles. At this rate of wear, we can assume they will deliver upwards of 100,000 miles on power units -- something we have never experienced in the past."
- "... The four (Bandag tires) on the tractor now have 19,000 miles on them and we have 13/32 of tread left."
- "... The tires have run 15,034 miles and are only 2/32" worn. Therefore, we can expect to get in excess of 100,000 miles on these caps."

bandag COLD PROCESS TOPCAPPING

For complete information,
contact the Bandag dealer near you,
or write Bandag, Inc., 1058 Hershey Avenue,
Muscatine, Iowa.

BANDAG DEALERS

BARBERTON, OHIO S. S. Tire, Inc.
BURGETTSTOWN, PA. Call Tire Dist., Inc.
CADIZ, OHIO Jim's L & M Tire Serv.
CHAMBERSBURG, PA. Dice's Tire Shop
CHICAGO, ILLINOIS Arthur Richmond DBA - South Tire Service
DENVER, COLORADO C & C Tire Company
ERIE, PA. Ross Copus Tire Serv.
FRANKLIN, PA. Franklin Serv. & Supply
FRESNO, CALIFORNIA Le Moss Smith Tire Co.
HAGERSTOWN, MARYLAND O. P. Bohman, Inc.
HANOVER, PA. Caldwell Tire Service
JOHNSTOWN, PA. Better Tire Sales Co., Inc.
KALAMAZOO, MICHIGAN Otto Kihm Tire Co.
KANSAS CITY, MISSOURI McDowell Tire Co.
LEBANON, PA. Peiffer Bros.
LONGVIEW, TEXAS Skaggs Rubber Co.

LOUISVILLE, KENTUCKY Tatum Tire Service
McHENRY, ILLINOIS Marticke & Nixon, Inc.
MEMPHIS, TENN. Stepieton General Tire
MENDOTA, ILLINOIS Mendota Tire Service
MOBERLY, MISSOURI Orschel Motor & Equipment Co.
MT. UNION, PA. Mt. Union Tire Serv.
OKLAHOMA CITY, OKLAHOMA Morgan Power Tire Co.
POTTSVILLE, PA. John J. Howells
SALINAS, CALIFORNIA Don Hultx Gen'l. Tire
SALT LAKE CITY, UTAH Bandag Retreaders, Ltd.
SAN DIEGO, CALIFORNIA Durnal & Sons General Tire
SPRINGFIELD, MISSOURI Truxan Parts, Inc.
WICHITA, KANSAS Martin Tire & Supply Co.
WILLIAMSPORT, PA. Clark & Hoag Tire Sales, Inc.
YEAGERSTOWN, PA. Fay L. Wagner



CHECK YOUR TUNE-UP

DEUTZ

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
F4L 514	324.6	4	4 ³ / ₈ x 5 ¹ / ₂
F6L 514 (in line)	486.9	6	4 ³ / ₈ x 5 ¹ / ₂
F6L 614	486.9	V-6	4 ³ / ₈ x 5 ¹ / ₂
F8L 614	649.2	V-8	4 ³ / ₈ x 5 ¹ / ₂
F12L 614	973.8	V-12	4 ³ / ₈ x 5 ¹ / ₂
F3L 712 (in line)	156	3	3 ³ / ₄ x 4 ³ / ₄
F4L 712 (in line)	208	4	3 ³ / ₄ x 4 ³ / ₄
F6L 712 (in line)	312	6	3 ³ / ₄ x 4 ³ / ₄
F6L 714	578.5	V-6	4 ³ / ₄ x 5 ¹ / ₂
F8L 714	771.3	V-8	4 ³ / ₄ x 5 ¹ / ₂
F12L 714	1151	V-12	4 ³ / ₄ x 5 ¹ / ₂

Oil Pressure

All models... 60 psi @ 2000 rpm

712 series 475 psi
714 series 450 psi

Compression Pressure

(At 80-100 rpm)

514, 614 series 300 psi

Operating Tappet Clearance

All models...
Inlet & Exhaust: .004-.008 in.

Seat Angle

All models 45 deg

Face Angle

All models 45 deg

TORQUE

Manifold Bolt

All models 70 lb-ft

CAPACITIES

Crankcase

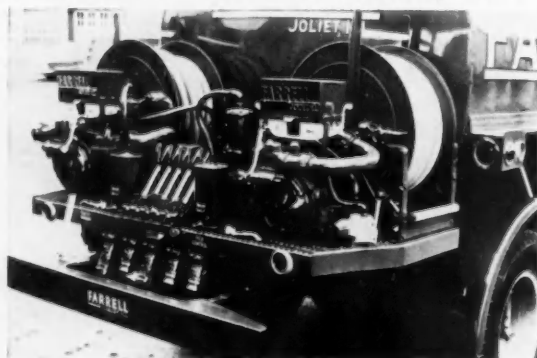
F4L 514	14.4 qt
F6L 514	25.6 qt
F6L 614, F6L 714....	26.4 qt
F8L 614, F8L 714....	26.4 qt
F12L 614	36 qt
F12L 714	39.2 qt
F3L 712	8.4 qt
F4L 712	10.6 qt
F6L 712	13.6 qt

LUBRICATION

All models... Use SAE 30 in Summer, SAE 20 or 20W in Winter. Below -4 deg use SAE 10W.

VALVES

New Platform Design Makes Delivery Faster



Close-up platform view of the newest truck tank by Farrell Mfg. Co., Joliet, Ill., shows improved location of pumps and hose reels. Strainers are mounted in the open for easier cleaning. With pumps at the rear, fuel from the rear faucets does not have to travel to the front of the tanks and back again.

New Heavy-Duty Wrecker



Here's a new heavy-duty, double boom wrecker made by the Manley Div., Douglas Motors Corp., Milwaukee, Wis. It has a 16-ton capacity, is designed to handle heavy wrecking jobs such as overturned trucks and trailers. It's equipped with outrigger legs to take the load off truck frame during heavy lifting.

Better products, faster, from your BCA bearing jobber:



GET BCA QUALITY for every ball-bearing replacement application on all types of fleet equipment.



It pays to standardize on BCA quality for truck, tractor and trailer ball bearings !



Cash in on BCA's years of automotive bearing experience . . . save with one-source purchasing from local stocks !

Today's fleet maintenance is a never-ending struggle! Supervisors must fight the clock so rigs roll on schedule . . . battle rising costs to stay competitive. And one sure way to do *both* is to standardize your fleet on BCA replacement ball bearings.

Heavy-duty BCA ball bearings handle *every* job—in wheels, generators, clutches, transmissions, differentials, starters and power steering. Over 50 years of BCA know-how pays off on the road in reduced downtime . . . in the shop as smooth-fitting, easy-to-install parts. And buying from a *single local source* trims overhead, too. You save on ordering and invoicing, stock only most-used parts . . . get same-day delivery on BCA ball bearings whenever you need them.

Get all the facts on how to save time and money by standardizing on BCA replacement ball bearings. Call your BCA jobber now!

BCA BALL BEARINGS

FEDERAL-MOGUL SERVICE

DIVISION OF FEDERAL-MOGUL-BOWER BEARINGS, INC. • DETROIT 13, MICHIGAN





CHECK YOUR TUNE-UP

GM DIESEL

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
"53" Series			
5037	159.2	3	3 $\frac{7}{8}$ x 4 $\frac{1}{2}$
5047	212.3	4	3 $\frac{7}{8}$ x 4 $\frac{1}{2}$
5067	318.4	V-6	3 $\frac{7}{8}$ x 4 $\frac{1}{2}$
"71" Series			
3172, 3174	212.8	3	4 $\frac{1}{4}$ x 5
4171, 4172, 4174	283.7	4	4 $\frac{1}{4}$ x 5
4171E*, 4172E*, 4174E*	283.7	4	4 $\frac{1}{4}$ x 5
4171T*	283.7	6	4 $\frac{1}{4}$ x 5
6174	425.6	6	4 $\frac{1}{4}$ x 5
6171E*, 6171T*	425.6	6	4 $\frac{1}{4}$ x 5
6172E*, 6173T*, 6174E*	425.6	6	4 $\frac{1}{4}$ x 5
7067*	425.6	V-6	4 $\frac{1}{4}$ x 5
7087*	567.4	V-8	4 $\frac{1}{4}$ x 5
"110" Series			
62306	660	6	5 x 5.6
* 4 valve head models			

Oil Pressure

"53" series	40-50 psi
"71" series	30-60 psi
"110" series	35-60 psi

Compression Pressure

(Minimum at sea level)

"53" series	475 psi
"71" series...	2-valve: 400 psi
	4-valve: 420 psi
"110" series	500 psi

VALVES

Operating Tappet Clearance

(Hot)

"53" series...	2-valve: .009 in.
	4-valve: .024 in.
"71" series...	2-valve: .009 in.
	4-valve: .024 in.
"110" series	.009 in.

Seat Angle

All models 30 deg

Face Angle

All models 30 deg

VALVE SPRINGS

Free length

"53" series...	2-valve: 2.5 in.
	4-valve: 2.08 in.
"71" series...	2-valve: 2.375 in.
	4-valve: 1.95 in.
"110" series	3.03 in.

Pressure

"53" series, 2-valve...	133-149 lb @ 1.91 in.
"53" series, 4-valve...	104-110 lb @ 1.527 in.
"71" series, 2-valve...	141 $\frac{1}{2}$ -150 $\frac{1}{2}$ lb @ 1.7656 in.
"71" series, 4-valve...	84 $\frac{1}{2}$ -89 $\frac{1}{2}$ lb @ 1.416 in.
"110" series...	191-201 lb @ 2.48 in.

TORQUE

Cylinder Head Bolt

"53" series...	170-180 lb-ft
"71" series... Bolt:	180-190 lb-ft
	Nut: 165-175 lb-ft
"110" series...Nut:	150-160 lb-ft

Manifold Nut

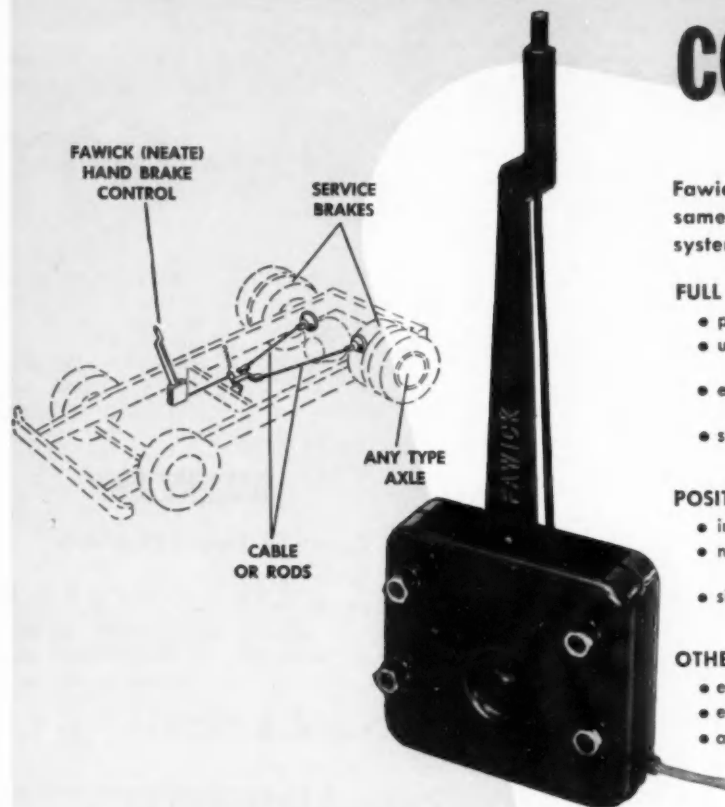
All models 30-35 lb-ft



"Change th' oil an' typewriter ribbon."

Safe emergency stops plus positive parking brakes . . . with

FAWICK (NEATE) HAND BRAKE CONTROL



Fawick (Neate) Hand Brake Control provides same braking power as the regular service brake system — with these unmatched advantages:

FULL POWER EMERGENCY BRAKE

- positive, driver-controlled brake application.
- up to 12" cable take-up thru multi-stroke operation.
- equal brake loading without adjustment — self-compensating for uneven brake wear.
- standard 10-to-1 mechanical advantage; other ratios available.

POSITIVE PARKING BRAKE

- instantaneous or gradual release.
- no drive shaft vibration or unbalance from parking brakes.
- simple design — eases drive shaft angularity problems on short wheel-base vehicles.

OTHER FEATURES

- easy to install.
- easy to service.
- adaptable to any type axle (including tandem)

New patented multi-stroke unit permits mechanical application of service brakes that meets and exceeds all conditions of I.C.C. regulations 193.40 and 193.41 as revised.

Now you can use the wheel brakes on the axle for emergency and parking! No longer need you depend on a drive shaft brake for this critical part of your braking requirement.

The FAWICK (Neate) Hand Brake Control enables your driver to apply service brakes mechanically for (1) emergency when air fails and (2) parking. This is accomplished with one lever

assembly and linkage to brake cam shaft slack adjuster levers. The result — no more braking done through differential and drive shaft, no more costly repairs after an emergency stop.

The FAWICK (Neate) Hand Brake Control is ready for your use — to help improve the safety and economy of your vehicles. Contact FAWICK Brake Division for further information.

FAWICK BRAKE DIVISION
CORPORATION
9921 CLINTON ROAD • CLEVELAND 9, OHIO



CHECK YOUR TUNE-UP

HALL-SCOTT

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
590 series (horiz. or vert.)	590	6	5 x 5
779 series (horiz.)	779	6	5 1/4 x 6
400 series	1090	6	5 3/4 x 7
1091 series	1090	6	5 3/4 x 7
6182	1091	6	5 3/4 x 7

Oil Pressure

590 series...60 psi @ 2800 rpm
 400 series...60 psi @ 1000-1200 rpm Hot.
 All others... 10 psi @ 350 rpm

Compression Pressure

590 series...Gasoline—6.6:1 ratio standard, 135 psi; L. P. G.—8.7:1 ratio, 200 psi
 779 series...6.1:1 ratio, 120 psi
 400 series...5.7:1 ratio standard, 129 psi @ 1000 rpm
 1091 series...Gasoline—6.4:1 ratio standard, 128 psi; L. P. G.—8.8:1 ratio, 205 psi

IGNITION

Cam Angle (Dwell)

590, 1091 series 34-37 deg
 779 series 34-37 deg
 400 series 34-39 deg
 6182 27-37 deg

Breaker Point Gap

590 series022 in.
 All others021 in.

Spark Occurs

(Degrees Before Top Center)
 590 seriesGasoline: 5 deg
 L. P. G.: 10 deg

400, 779 2 deg
 1091, 6182Gasoline: 2 deg
 L. P. G.: 8 deg

SPARK PLUGS

Make & Type

590 series CH J-5
 All other gasoline...
 Inlet: CH 9 Com
 Exhaust: CH 4 Com
 All other L. P. G....
 Inlet: CH 6 Com
 Exhaust: CH 4 Com

Size

590 series 14 mm
 All others 18 mm

Gap

590 seriesGasoline: .025 in.
 L. P. G.: .015 in.
 All others018-.023 in.

VALVES

Operating Tappet Clearance

(Cold unless noted)
 590 series, 779...
 Inlet & Exhaust: .022 in.
 All othersInlet: .021 in.
 Exhaust: .031 in.

Seat Angle

590 series...
 Inlet & Exhaust: 45 deg
 All othersInlet: 30 deg
 Exhaust: 45 deg

Face Angle

590 series...
 Inlet & Exhaust: 45 -45 1/4 deg
 All others...Inlet: 30 deg
 Exhaust: 44 1/2-44 3/4 deg

VALVE SPRINGS

Pressure

(Valve Open)
 590 series...
 Inner: 80 lb @ 1.750 in.
 Outer: 116 lb @ 1.812 in.
 1091 series...
 Inner: 105 lb @ 1.938 in.
 Outer: 138 lb @ 2.000 in.
 All others...
 Inner: 110 lb @ 1.938 in.
 Outer: 143 lb @ 2.000 in.



"Don't knock his method of timing—it works"



WEAVER HEAVY DUTY LIFTS

handle all wheelbase lengths
without loss of lifting capacity

You'll find that Weaver Lifts provide the answer for every weight and wheelbase requirement of every vehicle in your fleet. These lifts raise vehicles by the axles, thus giving mechanics free, unobstructed access to every under-chassis point. There are no rails in the way. Such working efficiency speeds shop production from 25% to 100%.

The Weaver Twin Post Lift and the Weaver Triple Post Lift (shown above in the same shop) are the *only* automotive type lifts that can handle various wheelbase lengths without loss of lifting capacity.

Heavy Duty Twin Post Lifts are regularly furnished with a wheelbase capacity of 102" mini-

mum and 204" maximum unless otherwise specified. Wheelbase extensions are available to take from 36" minimum up to 306" maximum — or longer if desired.

MODEL EC-105 TWIN POST LIFT is air-oil operated, and has a total capacity of 24,000 lbs.

MODEL EC-106 TWIN POST LIFT is electric operated, and has a total capacity of 36,000 lbs.

MODEL EC-106-3 TRIPLE POST LIFT is electric-oil operated, and has a total lifting capacity of 54,000 lbs.

For further details, see your Weaver jobber, or write us for Bulletin CCJ-457.



WEAVER MANUFACTURING COMPANY, SPRINGFIELD, ILL., U. S. A.

SERVICE SHOP EQUIPMENT

Complete line includes: Twin Post Lifts . . . Triple Post Lifts . . . Single Post Roll-on, Free-Wheel and Frame Type Lifts . . . Unit Lifts . . . Bumper Lift . . . Car Washers . . . Wheel Alignment Equipment . . . Headlight Testers . . . Brake Testers . . . Wheel Balancing Equipment . . . Jacks . . . Wheel Dollies . . . and Air Compressors.



CHECK YOUR TUNE-UP

HERCULES

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)	
ZXB	65	4	2 ⁵ / ₈	x 3
C2-90D	90	2	4	x 3 ¹ / ₂
IXB	133	4	3 ¹ / ₄	x 4
IXLB	141	4	3 ¹ / ₄	x 4 ¹ / ₄
GO-149	149	3	3 ³ / ₄	x 4 ¹ / ₂
GO-169	169	3	4	x 4 ¹ / ₂
CV4-180	180	4	4	x 3 ¹ / ₂
GO-198	198	4	3 ³ / ₄	x 4 ¹ / ₂
GO-226	226	4	4	x 4 ¹ / ₂
QXLD-3	237	6	3 7/16	x 4 ¹ / ₄
JXC	282	6	3 ³ / ₄	x 4 ¹ / ₄
GO-298	298	6	3 ³ / ₄	x 4 ¹ / ₂
JXD	320	6	4	x 4 ¹ / ₂
JXLD	339	6	4	x 4 ¹ / ₂
GO-339	339	6	4	x 4 ¹ / ₂
Diesels				
DD-149	149	3	3 ³ / ₄	x 4 ¹ / ₂
DD-169	169	3	4	x 4 ¹ / ₂
DD-198	198	4	3 ³ / ₄	x 4 ¹ / ₂
DD-226	226	4	4	x 4 ¹ / ₂
DD-298	298	6	3 ³ / ₄	x 4 ¹ / ₂
DJXH	298	6	3 ³ / ₄	x 4 ¹ / ₂
DD-339	339	6	3 ³ / ₄	x 4 ¹ / ₂
DRXC	529	6	4 ⁵ / ₈	x 5 ¹ / ₄
DFXE	895	6	5 ⁵ / ₈	x 6
DFXH	935	6	5 ³ / ₄	x 6

Oil Pressure

ZXB 15 psi @ 1000 rpm
C2-90, CV4-180...

45-60 psi @ 1800 rpm

IXB, IXLB...20 psi @ 1000 rpm

Go series ...32 psi @ 1200 rpm

JX series...26 psi @ 2000 rpm

DD series...32 psi @ 1200 rpm

DRXC30 psi @ 2000 rpm

DJX series...45 psi @ 2000 rpm

DFX series...50 psi @ 1600 rpm

IGNITION

Breaker Point Gap

All models018-.020 in.

Spark Occurs

All models.....Mark on flywheel

VALVES

Operating Tappet Clearance

(Hot unless noted)

ZXB Inlet: .006 in.

Exhaust: .006 in.

C2-90, CV4-180 (Cold)...

Inlet & Exhaust: .005-.007 in.

IX, QX series.....Inlet: .006 in.

Exhaust: .008 in.

JX seriesInlet: .008 in.

Exhaust: .010 in.

GO series, JXLD...

Inlet & Exhaust: .010 in.

DD, DJX series...

Inlet & Exhaust: .010 in.

DRXC..Inlet & Exhaust: .016 in.

DFX seriesInlet: .010 in.

Exhaust: .016 in.

Seat Angle

C2-90, CV4-180.....Inlet: 30 deg

Exhaust: 45 deg

JX, GO series...

Inlet & Exhaust: 45 deg

Other gasoline engines...

Inlet & Exhaust: 30 deg

All diesel engines...

Inlet & Exhaust: 45 deg

VALVE SPRINGS

Pressure

(Valve open)

ZXB35 lb @ 0.922 in.

C2-90, CV4-180...

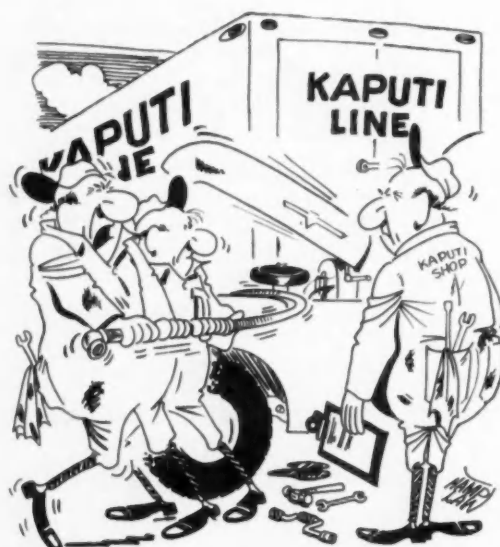
76-84 lb @ 1.18 in.

IX series42 lb @ 1.188 in.

GO series...

Inner: 32-36 lb @ 1.08 in.

Outer: 46-52 lb @ 1.20 in.



"RELAX! We gotta torque wrench on th' other end!"

JX series	.....58 lb @ 1.594 in.
QX series	.....41 lb @ 1.281 in.
DD series...	
Inner:	32-36 lb @ 1.08 in.
Outer:	46-52 lb @ 1.20 in.
DJX series...	
Inner:	37 lb @ 1.281 in.
Outer:	55 lb @ 1.406 in.
DRX series...	
Inner:	30 lb @ 1.355 in.
Outer:	48 lb @ 1.499 in.
DFX series...	
Inner:	57 lb @ 2.656 in.
Outer:	94 lb @ 2.969 in.

TORQUE

Cylinder Head Bolt

ZXB	.....	35 lb-ft
C2-90, CV4-180	.....	20 lb-ft
IX series	.....	40 lb-ft
GO series	.....	140 lb-ft
JX series	.....	75 lb-ft
QX series	.....	60 lb-ft
DRX series...		
$\frac{5}{8}$ in. thread:	175 lb-ft	
1 in. thread:	280 lb-ft	
DD series	.....	140 lb-ft
Other diesels	.....	158 lb-ft

CAPACITIES

Crankcase

ZXB	.....	3 qt
C2-90	.....	4 qt
IX series	.....	5½ qt
GO 149, 169	.....	5 qt
CV4-180	.....	5 qt

Mobile Weigh Station



A new mobile weight station has been developed by Locomotion Engineering, Inc., Sunnyvale, Cal., for use by State Highway Patrols. Semi-trailer transports the platform scales to the weighing site, then lowers them in place by hydraulic power. Ramps are then positioned and the scale is ready for operation to weigh even the biggest rigs.

GO 198, 226	.....	5½ qt
QX series	.....	6 qt
JXD, JXLD	.....	8½ qt
GO 298, 339	.....	7 qt
DD 149, 169	.....	5 qt
DD 198, 226	.....	5½ qt
DD 298, 339	.....	7 qt
DJX	.....	6 qt
DRXC	.....	15 qt
DFX series	.....	28 qt

LUBRICATION

Crankcase

All models... Use H. D. engine oil.
Above 60 deg use SAE 30;
Between 10 and 60 deg use
SAE 20; Between -10 and 10
deg use SAE 10; Below -10
deg use SAE 5W.

an engineering advance
of importance to all
multi-stop delivery
vehicle users

THE Montpelier
UNITIZED SERIES 75

- WORKHORSES IN MINIATURE
- GIANTS IN DEPENDABILITY
- LEADERS IN ECONOMY

FOUR MODELS

Capacities from 150 to 300 cubic feet
Wheelbases from 96 to 118 inches

FEATURING -

FULLY UNITIZED CONSTRUCTION

Chassis support members and body components are built as a single integral unit.

UNIQUE STEEL-FRP* CONSTRUCTION

An engineered combination of economical STEEL with lightweight, weatherproof *FIBERGLASS REINFORCED PLASTIC, utilizing the best properties of each.

REMOVABLE POWER BOGIE

Engine and front axle assembly on a sub-frame are rapidly removed for service or change, reducing vehicle downtime.

LARGE LOAD AREA

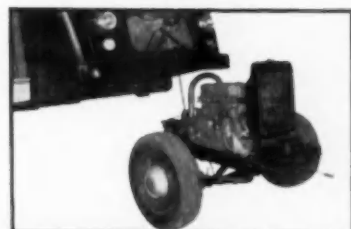
Parallel loading, suitably sized to vocational requirements, with square wheelhousings and recessed side doors.

TRANSLUCENT ROOF AREAS

—MONTPELIER offers daylight conditions in the loading compartment—through the use of integral translucent light areas in the ceiling of the lightweight Fiberglass Reinforced Plastic (FRP) roof assembly.

FULL SIDE AISLE

Spacious side aisle across driver's compartment at low-step level for maximum accessibility.



STEEL plus FRP plus MONTPELIER WORKMANSHIP equals BEST BODY BUY

WRITE, WIRE or CALL FOR COMPLETE INFORMATION
THE MONTPELIER MANUFACTURING COMPANY
MONTPELIER, OHIO • Telephone 5-3161



the "Midnight Chief"

with
Lincoln



One of six Multi-Luber-equipped "Midnight Chief" trucking units operated by Motor Cargo, Inc., between Akron, Ohio, and St. Paul, Minnesota. Running on a 24-hour schedule, each unit averages more than 15,000 miles per month.

FLEETS FIRST CHOICE
"COAST TO COAST"

*Trade Name Registered



LUBRICATES ITSELF en route

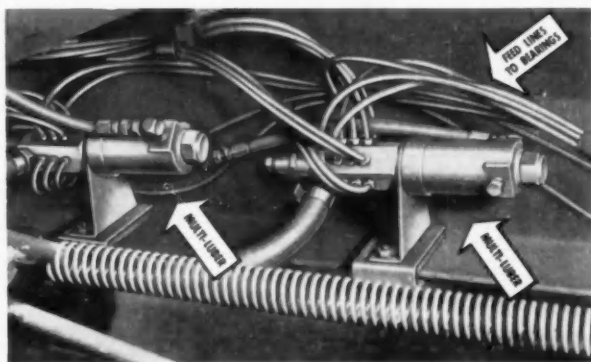
Multi-Luber*

automatic
POWER LUBRICATION

**"We Couldn't Be More Pleased
with Multi-Luber!"**



Says
JOE BOYNTON
Assistant Vice President
and Superintendent of
Equipment and
Garages, Motor
Cargo, Inc.,
Akron, Ohio



See the Multi-Luber system demonstrated at
Booth 21 at the forthcoming Operations Council—
American Trucking Association Meeting
in Minneapolis, April 26-30.

Write today for Bulletins
532, 533, and 534

No Sign of Bearing Wear after 90,000 Miles on the Akron-St. Paul run

The first unit of Motor Cargo's crack "Midnight Chief" trucking service between Akron and St. Paul was equipped with Multi-Luber automatic lubrication.

"After 90,000 miles we 'miked' the king pin bearing and found *no apparent wear*," reports Motor Cargo's Joe Boynton. "Comparison with a new king pin revealed the dimensions were identical . . . even at the upper and lower thrust points. So successful was the first 'Chief' that we now have six of them, and forty-six on order, and all units will be equipped with Multi-Luber."

The Lincoln Multi-Luber Lubricates while you operate

Here's how it works: each 6th time the brake is applied, the Multi-Luber delivers a measured amount of refinery pure lubricant under high pressure into every bearing simultaneously. Think of the advantages this unique system offers you: no more costly lubrication down-time; more efficient delivery schedules; assured protection of bearing surfaces, with longer bearing life and service. The Multi-Luber system is completely sealed, preventing contamination of lubricant, resisting deterioration from dust, mud, snow and ice.

LINCOLN ENGINEERING COMPANY

Division of The McNeil Machine & Engineering Co.

4010 GOODFELLOW BOULEVARD • ST. LOUIS 20, MISSOURI



CHECK YOUR TUNE-UP

ROILINE

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke
TH 540	540	V-8	4½ x 4¼
TH 844	844	V-8	5¼ x 4¾

Oil Pressure

TH 540...	35 psi @ 2000 rpm
TH 844...	45 psi @ 2000 rpm

Compression Pressure

All models...	125 psi @ cranking speed
---------------	--------------------------

IGNITION

Cam Angle

All models.....	21-30 deg
-----------------	-----------

Breaker Point Gap

All models.....	.016 in.
-----------------	----------

Spark Occurs

(Degrees Before Top Center)

TH 540...	@ 600 rpm: 5 deg
	@ 2800 rpm: 35 deg
TH 844...	@ 600 rpm: 4 deg
	@ 2600 rpm: 32 deg

SPARK PLUGS

Make & Type

All models.....	CH J-6
-----------------	--------

Size

All models.....	14 mm
-----------------	-------

Gap

All models.....	.020-.030 in.
-----------------	---------------

Torque

All models.....	25-30 lb-ft
-----------------	-------------

VALVES

Operating Tappet Clearance

All models (Hot)...	Inlet & Exhaust: .013 in.
---------------------	---------------------------

Seat and Face Angle

All models.....	45 deg
-----------------	--------

TORQUE

Cylinder Head Bolt

All models.....	60 lb-ft
-----------------	----------

Manifold Bolt

All models.....	90 lb-ft
-----------------	----------

VALVE SPRINGS

Free Length

TH 540.....	2 29/64 in.
TH 840.....	2¾ in.

Pressure

TH 540...	Valve open: 110 lb
	Valve closed: 56 lb
TH 844...	Valve open: 136 lb
	Valve closed: 61 lb

LUBRICATION

All models...Above 90 deg use SAE 40. From 32 to 90 deg use SAE 30. From 0 to 32 deg use SAE 20W. Below 0 deg use SAE 10W.

P & H

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
387C-18, 387C-18T	261	3	4½ x 5½
487C-18, 487C-18T	348	4	4½ x 5½
687C-18, 687C-18T	522	6	4½ x 5½

Oil Pressure

All models...	55-100 psi @ 1800 rpm
---------------	-----------------------

Compression Pressure

All models.....	325-400 psi
-----------------	-------------

VALVES

Operating Tappet Clearance

All models.....	.012-.014 in.
-----------------	---------------

Seat Angle

All models.....	89¼ deg
-----------------	---------

Face Angle

All models.....	90¼ deg
-----------------	---------

TORQUE

Manifold Bolt

All models.....	50 lb-ft
-----------------	----------

VALVE SPRINGS

Free Length

All models...	2¾-2 13/32 in.
---------------	----------------

Pressure

All models.....	105 lb
-----------------	--------

CAPACITIES

Crankcase

387C-18, 387C-18T.....	22 qt
487C-18, 487C-18T.....	24 qt
687C-18, 687C-18T.....	32 qt

LUBRICATION

Crankcase

All models...Above 30 deg use	SAE 30; Below 30 deg use
	SAE 20.

WAUKESHA

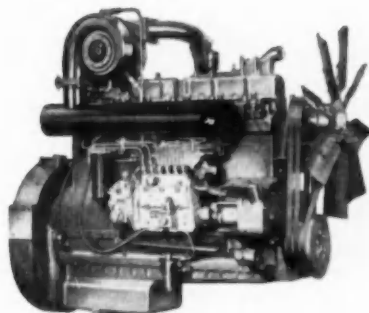
transport ENGINES

OVER THE ROAD OR OFF THE HIGHWAY

*the BEST
in all three!*

DIESEL

...in and out...down and up...over and through...go the trucks with Waukeshas—putting out the power that pulls and pays.

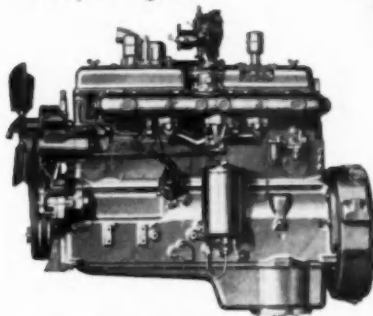


Normal or Turbocharged DIESELS from 60 to 350 hp.

Model shown is 148-DKBS—280 max. hp. $5\frac{1}{4}$ x 6 bore and stroke—779 cu. in. displacement.

GASOLINE

...where the pay-off is on payload—you'll make more miles and cut costs too, with these modern feature-packed transport engines.

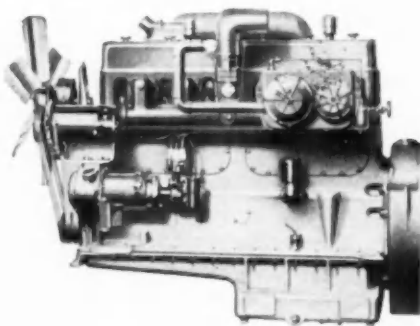


High Torque GASOLINE Engines from 30 to 280 hp.

Model shown is 140-GZ—170 max. hp. $4\frac{1}{8}$ x $5\frac{1}{2}$ bore and stroke—554 cu. in. displacement.

LP-GAS

...those tremendous, crushing 30-ton, 35-ton, 40-ton loads...up stiff grades, without faltering or breakdown...day after day—with Waukesha.



BUTANE-PROPANE Engines from 40 to 300 max. hp.

Model shown is WAKB—300 max. hp. $6\frac{1}{4}$ x $6\frac{1}{2}$ bore and stroke—1197 cu. in. displacement.

Send for Engine Bulletins

WAUKESHA MOTOR COMPANY, WAUKESHA, WISCONSIN

New York • Tulsa • Los Angeles

Factories: Waukesha, Wisconsin and Clinton, Iowa



CHECK YOUR TUNE-UP

WAUKESHA

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)
190GLB	265	6	3¾ x 4
195GKA	320	6	4⅛ x 4
135GKB	426	6	4⅛ x 5
135GZB	451	6	4⅜ x 5
140GK, 140GKB	525	6	4⅝ x 5½
140GZB	554	6	4⅝ x 5½
145GK, 145GKB	779	6	5¼ x 6
145GZB	817	6	5⅜ x 6
WAKB	1197	6	6¼ x 6½
Diesels			
190DLCA	265	6	3¾ x 4
195DLCA	302	6	4 x 4
135DKB, 135DKBS	426	6	4¼ x 5
148DKB, 148DKBS	779	6	5¼ x 6
WAKDB, WAKDBS	1197	6	6¼ x 6½

Oil Pressure

190GLB...12-15 psi @ governed speed

WAKB40 psi @ 1500 rpm
135GKB, 135GZB...

30 psi @ 1800 rpm

Other gasoline engines...

40 psi @ governed speed

190DLCA...

15 psi & 1500 rpm

195DLCA...

30 psi @ 2000 rpm

135DKB, 135DKBS...

40 psi @ 2200 rpm

148DKB, 148DKBS...

40 psi @ 1500 rpm

WAKDB, WAKDBS...

40 psi @ 1300 rpm

Compression Pressure

(At cranking speed)

195GKA 110 psi

145GK, WAKB..... 115 psi

Other gas engines.... 120 psi

190, 195DLCA 375 psi

148DKB, 148DKBS ... 435 psi

135DKB, 135DKBS ... 450 psi

WAKDB, WAKDBS ... 450 psi

Pickup Truck Storage Box

For operators needing extra storage space, this cross-mounted storage compartment is the answer. Made by the Utility Body Co. of Oakland, Cal., the compartment has both top and side doors equipped with locks. Sliding trays are available when small parts bins are needed. Without the trays, large tools or bulky equipment fit easily into the compartment.



IGNITION

Cam Angle (Dwell)

All gasoline engines....31-37 deg

Breaker Point Gap

All gasoline engines.... .018 in.

SPARK PLUGS

Size

190GLB, 195GKA 18 mm

WAKB 18 mm

All others 14 mm

Gap

All engines025 in.

VALVES

Operating Tappet Clearance

(Cold engine)

190GLBInlet: .010 in.

Exhaust: .016 in.

195GKAInlet: .015 in.

Exhaust: .023 in.

135 seriesInlet: .011 in.

Exhaust: .023 in.

140 seriesInlet: .013 in.

Exhaust: .019 in.

145GKInlet: .013 in.

Exhaust: .024 in.

145GKB & GZB...Inlet: .013 in.

Exhaust: .030 in.

WAKBInlet: .014 in.

Exhaust: .023 in.

190DLCAInlet: .010 in.

Exhaust: .020 in.

195DLCAInlet: .010 in.

Exhaust: .022 in.

135DKB, DKBS ...Inlet: .011 in.

Exhaust: .023 in.

148DKB, DKBS ...Inlet: .015 in.

Exhaust: .028 in.

WAKDB, WAKDBS...

Inlet: .014 in.

Exhaust: .024 in.

Seat Angle

195GLBInlet: 45 deg

Exhaust: 45 deg

195GKA, 135 series...

Inlet: 44½ deg

Exhaust: 44½ deg

140, 145 series...

Inlet: 30 deg

Exhaust: 45 deg

WAKBInlet: 30 deg

Exhaust: 44½ deg

135DKB, 135DKBS...
 Inlet: 30 deg
 Exhaust: 45½ deg
 WAKDB, WAKDBS...
 Inlet: 30 deg
 Exhaust: 45 deg
 Other diesels...
 Inlet & Exhaust: 45 deg

VALVE SPRINGS

Pressure

(Valve Open)

190GLB 71 lb @ 1.594 in.
 195GKA...
 114-134 lb @ 1.938 in.
 135 series...
 154-170 lb @ 1.859 in.
 140GK...
 Inner: 55 lb @ 1.438 in.
 Outer: 86 lb @ 1.656 in.
 140GKB, 140GZB...
 Inner: 70 lb @ 1.438 in.
 Outer: 127 lb @ 1.656 in.
 145GK...
 Inner: 81 lb @ 2.063 in.
 Outer: 118 lb @ 2.375 in.
 145GKB...
 Inner: 100 lb @ 2.063 in.
 Outer: 158 lb @ 2.375 in.
 145GZB...
 Inner: 81 lb @ 2.063 in.
 Outer: 118 lb @ 2.375 in.
 190DLCA...
 65-77 lb @ 1.594 in.
 195DLCA...
 114-134 lb @ 1.938 in.
 135DKB, 135DKBS...
 162 lb @ 2.313 in.

Corrugated Aluminum Body



Shown above is one of the new aluminum Brown truck bodies available in the Series "C" Cargo Vans. The series features a single unit rear frame to prevent warping, maintains door alignment. The new bodies come in lengths from 9 to 24 ft.

148DKB, 148DKBS...
 Inner: 81 lb @ 2.063 in.
 Outer: 118 lb @ 2.375 in.

TORQUE

Cylinder Head Bolt

190GLB, 195GKA... 92-100 lb-ft

135, 140 series..... 175 lb-ft
 145GK, 145GKB.....
 Long: 175 lb-ft
 Short: 150 lb-ft
 145GZB Long: 200 lb-ft
 Short: 175 lb-ft
 WAKB 140-150 lb-ft
 190, 195DLCA 96-100 lb-ft
 135DKB, DKBS 100-133 lb-ft
 Other diesels 250-267 lb-ft

**How do YOU
clean an
ENGINE BLOCK?**

**AUTOMATIC
POWER
AGITATED
HOT TANK**

Hot wash
an entire
engine block
or 200 lbs.
of Parts

FAST!

DOES IN
MINUTES
WHAT FORMERLY
TOOK HOURS!

Rapid vertical strokes of the motor-driven rack create a washing pressure in the heated cleaning compound, flushing off grease and grime without mess.

The Kleeer-Flo POWERMASTER is equipped with a powerful gas immersion type heating unit which works equally well with natural, manufactured or bottled gas.

CAN BE USED AS A COLD WASHER TOO!

**POWERMASTER
DEGREASER**

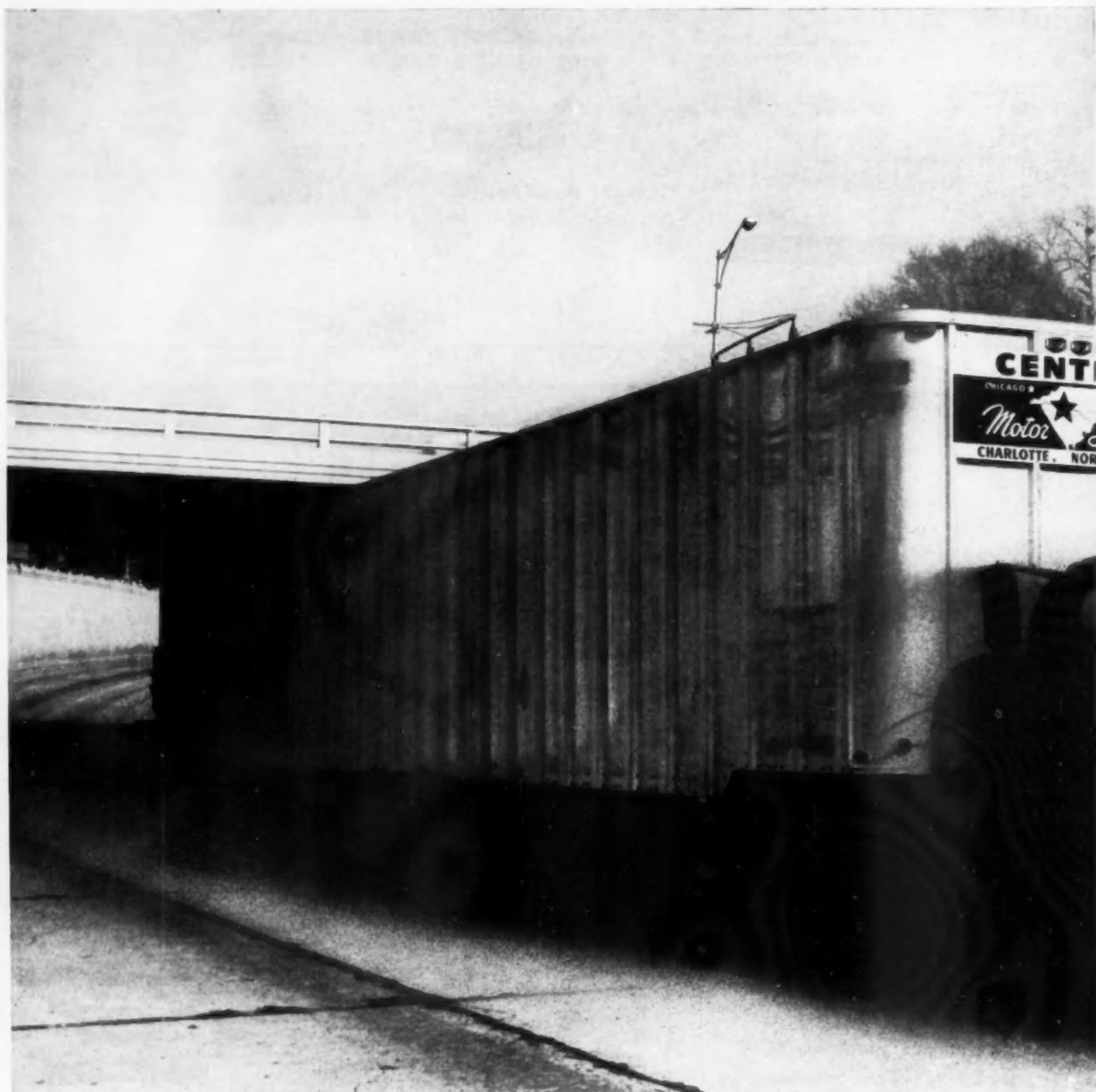
RECOMMENDED
CLEANING
COMPOUND!

Write Dept. J-4
for
Information

America's Foremost Producer of Parts Cleaning Equipment

PRACTICAL MFG. CO.

2840 4TH AVE. S. • MINNEAPOLIS, MINN.



154 tractors rack up more miles per gallon, have cleaner **GULF MAKES THINGS**

"We have more than enough evidence—in mileage records, maintenance reports and fleet performance—to prove that Gulf Dieselect is the right fuel for our diesel tractors, all 154 of them. The engines stay unusually clean, and that means more miles per maintenance dollar."

That's the word from the maintenance department of Central Motor Lines, Charlotte, N. C. Central hauls textiles and general freight along the Atlantic seaboard and into the Middle West. Their reputation is built on tight-schedule, dependable operation.

They operate a fleet of 154 diesel tractors, 390 trailers, 81 ton-and-a-half pick-up trucks, 55 gasoline trucks, 48 company cars and five service trucks. Since the tractors make up the varsity team of the operation, the preventive maintenance program at Central puts particular emphasis on diesel fuel.

"Some people underestimate the importance of fuel in a preventive maintenance program," says Central Motor Lines. "But there's quite a variance in the quality of diesel fuels. It can show up in the form of deposits in



Gulf Sales Representative J. D. Watkins, left, discusses the importance of diesel fuel in preventive maintenance with the maintenance superintendent of Central Motor Lines.

Ready to roll to New York or Chicago, the tractor-trailers of Central Motor Lines, Charlotte, North Carolina, run better on Gulf Dieselect—the clean-burning fuel especially formulated for diesel engines in heavy duty service.

engines, with Gulf Dieselect fuel . . . **RUN BETTER!**

filters, tanks or fuel injectors. We never have this trouble with Gulf Dieselect.

"At inspection time, our valves are clean and our oil-control rings show negligible deposits. We attribute this to the clean-burning characteristics of Gulf Dieselect which we've been using for years."

How about *your* diesels? See how Gulf makes things run better. Let a Gulf Sales Engineer show you how Gulf Dieselect can help you get more miles per maintenance dollar. Phone your Gulf office now.

GULF OIL CORPORATION
Dept. DM, Gulf Building
Pittsburgh 30, Pa.





CHECK YOUR TUNE-UP

PASSENGER CARS

Chevrolet Rambler Dodge

Ford Plymouth Studebaker

ENGINES

Engine Model	Displacement (cu in.)	Cyl	Bore & Stroke (in.)	
Chevrolet 235	235.5	6	3 9/16	x 3 15/16
Chevrolet 283	283.0	8	3 7/8	x 3
Chevrolet 348	348.0	8	4 1/8	x 3 3/4
Dodge 230	230.0	6	3 1/4	x 4 5/8
Dodge 326	326.0	8	3 61/64	x 3 5/16
Dodge 361	361.0	8	4 1/8	x 3 3/8
Dodge 383	383.0	8	4 1/4	x 3 3/8
Ford 223	223.0	6	3 5/8	x 3 39/64
Ford 292	292.0	8	3 3/4	x 3 19/64
Ford 332	332.0	8	4	x 3 19/64
Ford 352	352.0	8	4	x 3 1/2
Plymouth 230	230.0	6	3 1/4	x 4 5/8
Plymouth 318	318.0	8	3 29/32	x 3 5/16
Plymouth 361	361.0	8	4 1/8	x 3 3/8
Rambler 195	195.6	6	3 1/8	x 4 1/4
Rambler 250	250.0	8	3 1/2	x 3 3/4
Rambler 327	327.0	8	4	x 3 1/4
Studebaker 169	169.6	6	3	x 4
Studebaker 259	259.2	8	3 9/16	x 3 1/4

Oil Pressure

Engine

Chevrolet 235...	35 psi @ 3500 rpm
Chevrolet 283, 348...	35 psi @ 2000 rpm
Dodge 230...	40-45 psi @ 1500 rpm
Dodge 326, 361, 383...	45-65 psi @ 2000 rpm
Ford 223...	45-50 psi @ 2000 rpm
Ford 292...	45-55 psi @ 2000 rpm
Ford 332, 352...	43-54 psi @ 2000 rpm
Plymouth 230...	40-45 psi @ 1500 rpm
Plymouth 318, 361...	45-65 psi @ 2000 rpm

Rambler 195...	50 psi @ 3000 rpm
Rambler 250, 327...	55 psi @ 3000 rpm
Studebaker 169, 259...	20-40 psi @ 2000 rpm

IGNITION

Cam Angle (Dwell)

Chevrolet 235	28-35	deg
others	26-35	deg
Dodge 230	36-42	deg
others	27-32	deg
Ford 223	35-38	deg
others	26-28 1/2	deg
Plymouth 230	36-42	deg
others	27-32	deg

Rambler 195	28-35	deg
others	28-32	deg
Studebaker 169	38-40	deg
259	28-34	deg

Breaker Point Gap

All Chevrolet engines	.016-.021 in.
Dodge 230	.018-.022 in.
others	.015-.018 in.
Ford 223	.024-.026 in.
others	.014-.016 in.
Plymouth 230	.018-.022 in.
others	.015-.018 in.
All Ramblers	.016 in.
Studebaker 169	.020 in.
Studebaker 259	.013-.018 in.

Spark Occurs

(Degrees Before Top Center)

Engine

Chevrolet 235	5	deg
others	4	deg
Dodge 230	2 1/2	deg
others	10	deg
Ford 223	4	deg
others	3	deg
Plymouth 230	2 1/2	deg
Plymouth 318	10	deg
Plymouth 361	7 1/2	deg
Rambler 195		
(American)	3	deg
195 (Six), 327	5	deg
250		TC
Studebaker 169	2	deg
259	4	deg

SPARK PLUGS

Make & Type

All Chevrolet engines	AC 44
Dodge 230	AL AR-51
326	AL AR-42
361	AL A-42
383	AL A-32
Ford 223	CH 870
292	CH F-14-Y
others	CH F-11-Y
Plymouth 230	AL AR-51
318	AL AR-42
361	AL A-32
All Ramblers	
	AL AL-7, CH H-10
Studebaker 169	CH J-7
259	CH H-18-Y

Size

All Chevrolet	14 mm
All Dodge	14 mm
All Ford	18 mm
All Plymouth	14 mm
All Rambler	14 mm
All Studebaker	14 mm

Gap

Chevrolet 235	.033-.038 in.
others	.035 in.
All Dodge	.035 in.
All Ford	.032-.036 in.
All Plymouth	.035 in.
All Rambler	.033-.037 in.
Studebaker 169	.028-.033 in.
259	.033-.038 in.

Torque

Engine

All Chevrolet	25 lb-ft
All Dodge	30-32 lb-ft
Ford 223	20-30 lb-ft
others	20 lb-ft
All Plymouth	30-32 lb-ft
All Rambler	30 lb-ft
All Studebaker	25-30 lb-ft

VALVES

Operating Tappet Clearance

(Hot unless noted)

All Chevrolet engines	zero
Dodge 230	
Inlet & Exhaust	.010 in.
others	zero
Ford 223, 292	
Inlet & Exhaust	.019 in.
Ford 332, 352	
Inlet & Exhaust	zero
Plymouth 230	Inlet: .010 in.
Exhaust	.010 in.
Plymouth 318	Inlet: .010 in.
Exhaust	.018 in.
Plymouth 361	zero
Rambler (American)	Inlet: .016 in. cold; Exhaust: .018 in. cold
Rambler 195	Inlet: .012 in.
Exhaust	.016 in.
Rambler 250	Inlet: .012 in.
Exhaust	.014 in.
Rambler 327	zero
Studebaker 169	
Inlet	.018 in. cold
Exhaust	.018 in. cold
Studebaker 259	
Inlet & Exhaust	.023-.025 in.

Seat Angle

Engine

Chevrolet 235	Inlet: 31 deg
Exhaust	46 deg
Chevrolet 283, 348	Inlet: 46 deg
Exhaust	46 deg
All Dodge	
Inlet & Exhaust	45 deg
Ford 223, 292	
Inlet & Exhaust	45½-45¾ deg

Ford 332, 352...

Inlet: 60½-60¾ deg
Exhaust: 45½-45¾ deg

All Plymouth...

Inlet & Exhaust: 45 deg

Rambler 195...

Inlet & Exhaust: 45 deg

Rambler 250, 327...

Inlet: 30 deg
Exhaust: 45 deg

All Studebaker...

Inlet & Exhaust: 45 deg

VALVE SPRINGS

Pressure

(At Open Length)

Engine

Chevrolet 235	
158-168 lb @ 1.528 in.	
Chevrolet 283	
159-169 lb @ 1.306 in.	
Chevrolet 348	
184-196 lb @ 1.230 in.	
Dodge 230	115 lb @ 1.38 in.
Dodge 326	166 lb @ 1.31 in.
Dodge 361, 383	
195 lb @ 1.47 in.	
Ford 223, 292	
161-177 lb @ 1.390 in.	
Ford 332, 352	
180-198 lb @ 1.42 in.	
Plymouth 230	
115 lb @ 1.38 in.	
Plymouth 318	
166 lb @ 1.31 in.	
Plymouth 361	
195 lb @ 1.47 in.	
Rambler 195 (American)	
75-82 lb @ 1.44 in.	
Rambler 195 (Six)	
115-125 lb @ 1.4375 in.	
Rambler 250, 327	
150-160 lb @ 1.4375 in.	

Studebaker 169...

93-103 lb @ 1.3125 in.

Studebaker 259...

105-115 lb @ 1.6719 in.

BATTERY

Amp-Hour Capacity

Engine

Chevrolet 235, 283	53
Chevrolet 348	61
Dodge 230, 326	50
Dodge 361, 383	60
Ford 223, 292	55
Ford 332, 352	65
Plymouth 230, 318	50
Plymouth 361	60
Rambler 195 (American)	40
Rambler 195 (Six)	45
Rambler 250	50
Rambler 327	60
All Studebaker	50

Plates Per Cell

Engine

Chevrolet 235, 283	9
Chevrolet 348	11
Dodge 230, 326	9
Dodge 361, 383	11
Ford 223, 292	11
Ford 332, 352	13
Plymouth 230, 318	9
Plymouth 361	10
Rambler 195	7
Rambler 250	9
Rambler 327	11
All Studebaker	9

Terminal Grounded

All makes, all models.... Neg

FRONT END

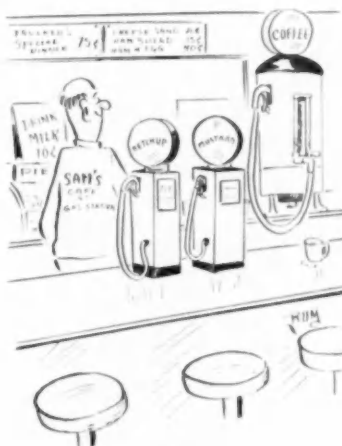
Toe-In

Chevrolet	1/16- 1/8 in.
Dodge	3/32-5/32 in.
Ford	1/32- 1/8 in.
Plymouth	3/32-5/32 in.
Rambler	1/16-3/16 in.
Studebaker	1/16- 1/8 in.

Camber

Chevrolet	0-+1 deg
Dodge	Left: 0-+ 1/2 deg
Right:	-1/4-+ 1/4 deg
Ford	+1/2-+1 1/2 deg
Plymouth	Left: 0-+ 1/2 deg
Right:	-1/4-+ 1/4 deg
Rambler	-1/4-+ 1/4 deg
Studebaker	0-1 deg

(TURN TO PAGE 200, PLEASE)



Passenger Car

Continued from page 199

Caster

Chevrolet	-1/2-+ 1/2 deg
Dodge	0-1 1/2 deg
Ford	0-+1 deg
Plymouth	0-1 1/2 deg
Rambler	0-+ 1/2 deg
Studebaker ...	-1-2 1/2 deg

King Pin Slant

Chevrolet	7 1/4 deg
Dodge	6 1/2 deg
Ford	6 3/4 deg
Plymouth	6 1/2 deg
Rambler (American) ..	8 deg
others ..	6 1/4 deg
Studebaker	6 deg

CAPACITIES

Crankcase

Chevrolet 235.....	5 qt
others.....	4 qt
All Dodge	5 qt
Ford 223.....	4 qt
others.....	5 qt
All Plymouth	5 qt
All Rambler	4 qt
All Studebaker	5 qt

Transmission

All Chevrolet	2 pt
Dodge 383	21 pt
others.....	2 3/4 pt
All Ford	3 pt
All Plymouth	2 3/4 pt
Rambler 195	1 1/2 pt
Rambler 250	2 1/4 pt
Rambler 327	4 pt
Studebaker 169.....	2 1/4 pt
259.....	3 3/4 pt

Rear Axle

All Chevrolet	4 pt
Dodge 230.....	3 3/4 pt
others.....	3 1/2 pt
All Ford	4 1/2 pt
Plymouth 230.....	3 1/4 pt
others.....	3 1/2 pt
Rambler 195	3 pt
others.....	4 pt
All Studebaker	2 1/2 pt

Cooling System

(Without heater)

Chevrolet 235.....	17 qt
283.....	17 1/2 qt
348.....	21 qt

Dodge 230.....	13 qt
326.....	20 qt
361, 383.....	16 qt
Ford 223	15 qt
others	19 qt
Plymouth 230.....	13 qt
318.....	20 qt
361.....	16 qt
Rambler (American) ..	11 qt
195.....	10 qt
250.....	20 qt
327.....	19 qt
Studebaker 169.....	11 qt
259.....	17 qt

LUBRICATION

Crankcase

Chevrolet—All models: Above 32 deg use SAE 20W, 20, or 10W-30; Between 0 and 32 deg use SAE 10W or 10W-30; Below 0 deg use SAE 5W or 5W-20.

Dodge—All models: Above 32 deg use SAE 30, 20W-40, or 10W-30; Between 10 and 32 deg use SAE 20W, 20W-40, or 10W-30; Between -10 and 10 deg use SAE 10W, 10W-30, or 5W-20; Below -10 deg use SAE 5W, or 5W-20.

Ford—All models: Above 32 deg use SAE 20, or 20W; Between -10 and 32 deg use SAE 10, or 10W; Below -10 deg use SAE 5W.

Plymouth—All models: Above 32 deg use SAE 30, 20W-40, or 10W-30; Between 10 and 32 deg use SAE 20, 20W-40, or 10W-30; Between -10 and 10 deg use SAE 10, 10W-30, or

5W-20; Below -10 deg use SAE 5W, or 5W-20.

Rambler—All models: Above 32 deg use SAE 20 or 10W-30; Between 10 and 32 deg use SAE 20W or 10W-30; Between -10 and 10 deg use SAE 10W or 10W-30; Below -10 deg use SAE 5W, or 5W-20.

Studebaker—All models: Above 32 deg use SAE 30, 20W-40, or 10W-30; Between 10 and 32 deg use SAE 20W, or 10W-30; Between -10 and 10 deg use SAE 10W, or 10W-30; Below -10 deg use SAE 5W, or 5W-20.

Transmission

Chevrolet—All models: Use SAE 90 all year. In extreme cold use SAE 80.

Dodge—Automatic: Use Type A automatic transmission fluid all year. Manual: Above -10 deg use SAE 80; Below -10 deg use SAE 75.

Ford—All models: Use SAE 80 all year.

Plymouth—All models: Use SAE 80 all year. In extreme cold use SAE 75.

Rambler—All models: Above 32 deg use SAE 90; Below 32 deg use SAE 80.

Studebaker—All models: Use SAE 90 all year.

Rear Axle

Chevrolet—All models: Use SAE 90 all year.

Dodge—All models: Above -10 deg use SAE 90; Between -10 and -30 deg use SAE 80; Below -30 deg use SAE 75.

Ford—All models: Use SAE 90 all year. In extreme cold use SAE 80.

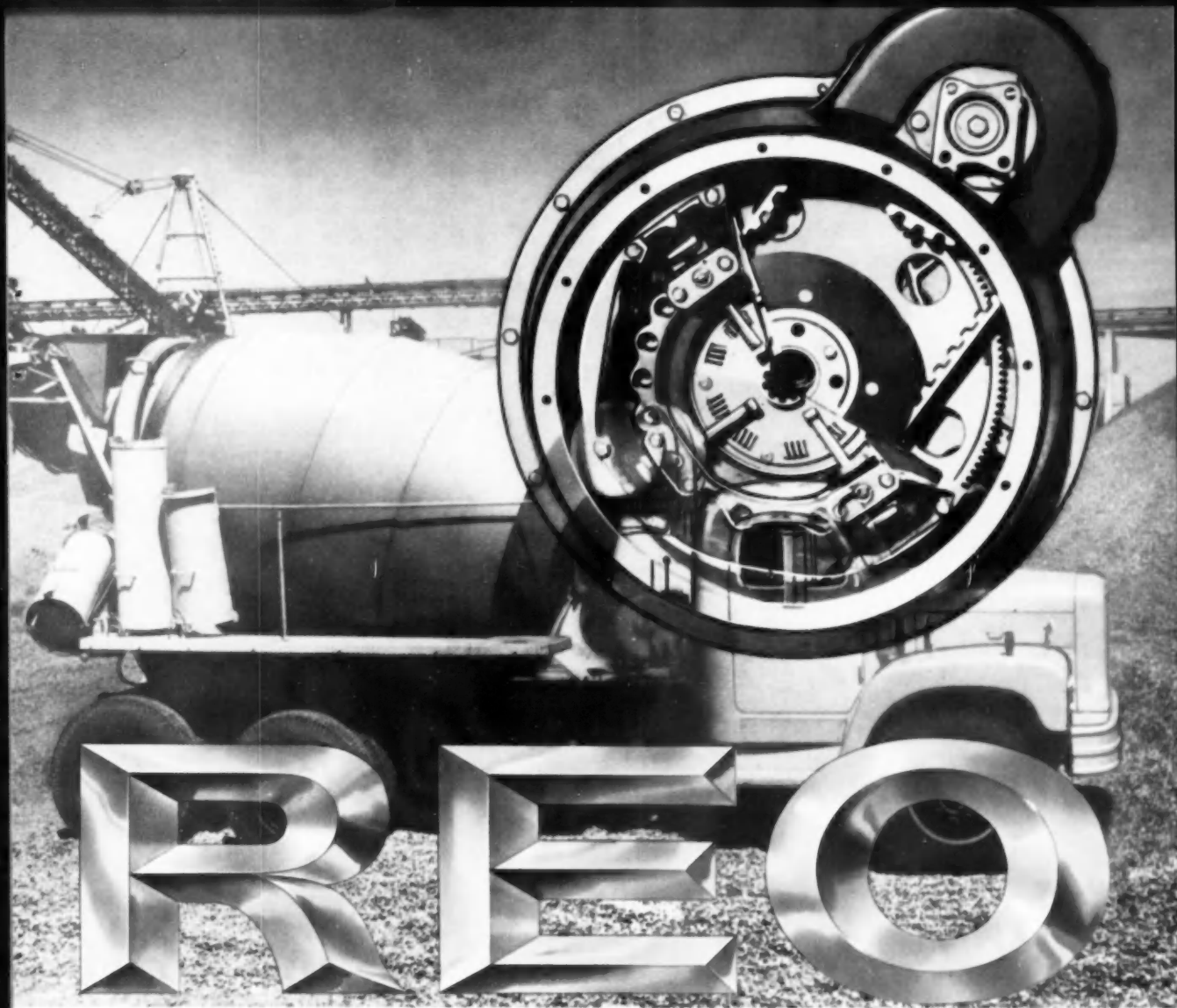
Plymouth—All models: Above -10 deg use SAE 90; Between -10 and -30 deg use SAE 80; Below -30 deg use SAE 75.

Rambler—All models: Use SAE 90 all year. In extreme cold use SAE 80.

Studebaker—All models: Use SAE 90 all year.



"I know what you're going to say.
You're ashamed of me."



Reo's revolutionary new Flywheel P.T.O. brings to transit mix operators a "bonus" payload increase from 400 to 600 lbs. per trip—actual weight savings in a 6½ cu. yd. mixer unit resulting from the elimination of separate engine power.

Also eliminated are the headaches of separate service and maintenance requirements.

Reo engineered and installed as an integral part of the chassis engine drive, the Reo Flywheel P.T.O. supplies the mixer with a lighter and more efficient new source of power—smooth . . . even flowing . . . direct.

Most important, operators can have the "bonus" payload advantage of Reo's new P.T.O. at a low initial cost of equipment.

Now available in Reo's rugged "C" Series line of transit-mix trucks. Another product of Reo's creative engineering skill has been added to the many important values found only in Reo Trucks. Reo Division, The White Motor Company, Lansing, Michigan.



Gold Standard of Values

EVANS HEATERS ARE **RIGHT** FOR TRUCKS BECAUSE THEY'RE **BUILT** FOR TRUCKS!



There's as big a difference between truck and car heaters as there is between truck and car tires. Evans truck heaters are *especially built* to meet heavy-duty requirements, and last longer under the most strenuous truck service. It will pay you to specify Evans truck-built heaters for *your* fleet.

Regional Representatives: Cleveland, Frank A. Chase
Chicago, R. A. Lennox; Detroit, Chas. F. Murray Sales Co.
Allentown, Pa., P. R. Weidner

EVANS

TRUCK AND BUS HEATERS
AND VENTILATING SYSTEMS

EVANS PRODUCTS COMPANY

Plymouth, Michigan





SECTION

2

CHECK YOUR FACTS

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CHECK YOUR FACTS

TRUCK DATA

1958 Intercity Truck Tonnage

By Regions				By Commodities			
Region	1958*	1957*	Per Cent Change	Commodity	1958*	1957*	Per Cent Change
New England	16,315	16,543	- 1.4	General Freight	143,950	146,229	- 1.6
Middle Atlantic	63,086	64,898	- 2.8	Household Goods	1,431	1,385	+ 3.3
Central	77,576	82,662	- 6.2	Heavy Machinery	2,783	3,065	- 9.2
Southern	40,528	38,123	+ 6.3	Liquid Petroleum	81,898	78,585	+ 4.0
Northwestern	16,350	14,260	+ 7.6	Refrigerated Liquids	1,581	1,682	- 6.0
Midwestern	19,725	18,897	+ 4.6	Refrigerated Solids	3,085	3,012	+ 1.4
Southwestern	26,403	25,574	+ 3.2	Agricultural Commodities	5,292	4,901	+ 6.2
Rocky Mountain	11,242	10,819	+ 3.9	Motor Vehicles	9,217	12,031	-23.4
Pacific	30,370	32,267	- 5.9	Building Materials	7,637	7,880	- 3.1
United States	300,605	304,001	- 1.1	All Other	43,953	45,150	- 2.7
				Total	300,605	304,001	- 1.1

* In thousands of tons. Covering 2104 Class 1 and 2 intercity common and contract motor carriers of property as reported by American Trucking Assns. Research Dept. It does not represent total truck tonnage.

Indexes of Intercity Truck Tonnage

1958 IS ONLY TWO POINTS BELOW RECORD

Year	1948	1950	1951	1952	1953	1954	1955	1956	1957	1958
United States	107	137	148	148	160	154	177	183	184	182

By Regions

FIVE REACH NEW HIGHS

New England	99	122	126	128	135	134	140	153	155	152
Middle Atlantic	106	133	142	141	150	141	165	171	174	167
Central	107	149	154	149	167	148	177	173	164	154
Southern	114	134	158	172	185	192	224	229	243	258
Northwestern	106	123	134	133	143	147	163	173	163	166
Midwestern	113	133	141	141	151	150	171	172	172	180
Southwestern	110	139	164	168	177	184	220	234	253	251
Rocky Mountain	110	129	152	178	200	214	230	246	271	281
Pacific	103	119	141	147	148	151	160	182	181	171

By Commodities

AGRICULTURAL GROUP SHOWS LARGEST INCREASE

General Freight	106	146	156	156	168	160	182	187	187	184
Household Goods	102	117	148	167	175	178	199	216	235	242
Heavy Machinery	86	108	134	153	174	184	205	212	219	199
Liquid Petroleum Products	107	123	139	143	151	158	171	181	188	193
Refrigerated Liquids	103	129	121	129	130	140	162	148	169	159
Refrigerated Solids	124	149	165	185	198	193	211	244	270	274
Agricultural Commodities	91	105	123	116	111	112	122	151	149	159
Motor Vehicles	124	159	148	134	161	137	196	156	176	134
Building Materials	141	182	214	241	220	213	252	280	225	218
Film & Associated Commodities	106	114	114	126	113	109	115	120	128	128
All Other Commodities	110	143	164	159	175	149	172	180	180	175

Compiled by American Trucking Assns. from reports of ICC Class 1 Common and Contract Intercity Carriers of Property. Indexes are based on 1947-49 average = 100. * Included with "All Other Commodities."

Vehicle Fuel Consumption

WHO USES HOW MUCH OF WHAT KIND

User Groups	Travel by Type of Fuel Used			Fuel Consumption					
				Gal. per Mile			Gal. per Ton-Mile		
	Gasoline	Diesel	Other	Gasoline	Diesel	Other	Gasoline	Diesel	
Passenger cars	100%	N	N	.067			.034		
Buses:									
Intercity	39	61%	N	.185	.135		.016	.012	
Transit	60	36	4%	.307	.228	.364	.027	.020	
School and other	100	N	N	.125			.022		
Straight trucks:									
2-axle, 4-tire	100	N	N	.074			.031		
2-axle, 6-tire	100	N	N	.127			.021		
3-axle	100	N	N	.192			.016		
Combinations:									
Tractor-Semitrailer	80	18	2	.241	.168	.268	.013	.009	
Truck-Trailer	80	18	2	.282	.197	.313	.012	.008	

Source: Bureau of Public Roads, based on latest available data (1954). N—percentage negligible.

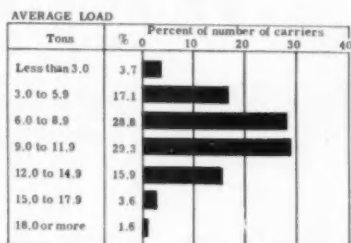
55 Years of Truck & Bus Factory Sales

31 MILLION VEHICLES
\$40 BILLION VALUE

Year	Units	Wholesale Value	Average Wholesale Price
1904	700	\$1,272,747	\$1,818
1905	750	1,330,000	1,773
1906	800	1,440,000	1,800
1907	1,000	1,780,000	1,780
1908	1,500	2,550,000	1,700
1909	3,267	5,333,683	1,618
1910	6,000	9,660,000	1,610
1911	10,661	21,000,000	1,966
1912	22,000	43,000,000	1,954
1913	23,500	44,000,000	1,872
1914	24,900	44,219,096	1,776
1915	74,000	125,000,000	1,700
1916	92,130	161,000,000	1,747
1917	126,157	220,982,868	1,724
1918	227,250	434,168,992	1,910
1919	224,731	371,422,820	1,653
1920	321,789	423,249,410	1,315
1921	148,052	166,070,810	1,122
1922	269,991	226,049,658	837
1923	409,295	308,537,929	754
1924	416,859	318,580,580	765
1925	530,659	458,400,277	864
1926	516,947	452,123,435	875
1927	464,793	420,130,624	904
1928	563,342	460,106,963	789
1929	681,909	623,533,897	706
1930	575,364	390,752,061	679
1931	432,262	265,444,618	614
1932	228,303	137,624,157	603
1933	329,218	175,380,863	533
1934	576,205	326,781,668	567
1935	697,367	380,997,339	546
1936	782,220	463,719,466	593
1937	891,016	537,314,633	603
1938	488,841	329,917,646	675
1939	700,377	489,786,701	699
1940	754,901	567,620,144	752
1941	1,060,820	1,069,799,855	1,006
1942	818,682	1,427,456,801	1,744
1943	699,689	1,451,794,475	2,076
1944	737,524	1,700,929,939	2,306
1945	665,683	1,181,955,532	1,803
1946	940,866	1,043,247,276	1,109
1947	1,239,443	1,731,713,000	1,397
1948	1,376,274	1,880,475,000	1,366
1949	1,134,185	1,394,035,000	1,229
1950	1,337,193	1,707,748,000	1,277
1951	1,426,628	2,323,899,000	1,629
1952	1,218,165	2,319,789,000	1,904
1953	1,206,266	2,069,060,000	1,732
1954	1,042,174	1,660,019,000	1,593
1955	1,249,106	2,020,973,000	1,618
1956	1,104,461	2,077,432,000	1,881
1957	1,107,176	2,082,723,000	1,881
1958	677,294	1,719,100,000	1,959

55 Years 31,072,735 \$40,292,293,714

Tons per Load CLASS I CARRIERS



Source: Transportation Research, Inc. (Trinc)

Trucks in Use by Type and GVW HOW THEY ARE DISTRIBUTED ON A PERCENTAGE BASIS

Registered GVW	Straight Trucks			Combinations		All Trucks
	2-axis, 4-tire	2-axis, 6-tire	3-axis	Tractor-Semitrailer	Truck-Trailer	
6,000 lb. and under	52.800%	1.940%				54.740%
6,001-8,000 lb.	6.200	3.460				9.660
8,001-10,000 lb.	2.500	4.800				7.300
10,001-12,000 lb.	1.000	5.000				6.000
12,001-16,000 lb.		7.440	0.200%	0.330%	0.630%	8.000
16,001-20,000 lb.		4.360	0.300	0.330	0.910	5.000
20,001-24,000 lb.		1.615	0.200	0.825	0.960	2.700
24,001-30,000 lb.		0.685	0.300	0.415	0.100	1.500
30,001-40,000 lb.		0.700	0.735	0.925	0.040	2.400
Over 40,000 lb.			0.265	2.175	0.260	2.700
All trucks	62.500	30.000	2.000	5.000	0.500	100.000

Source: Bureau of Public Roads based on 1954 registrations.

Number and Per Cent of Trucks in Use by Age Groups

AVERAGE IS 7.22 YEARS

Age in Years	1958			1957			1956			1955		
	Units	% of Total	Cumul.	Units	% of Total	Cumul.	Units	% of Total	Cumul.	Units	% of Total	Cumul.
Under 1	395,829	3.95	3.95	406,138	4.18	4.18	488,692	5.14	5.14	501,041	5.51	5.51
1-2	742,912	7.41	11.36	840,856	8.66	12.84	923,404	9.71	14.85	989,919	7.57	13.08
2-3	848,399	8.46	19.82	918,846	9.46	22.30	988,828	7.34	22.00	846,981	9.30	22.38
3-4	914,163	9.12	28.94	675,750	6.96	29.26	843,657	8.87	30.86	776,276	8.52	30.90
4-5	669,355	6.68	35.62	619,688	8.44	37.70	783,474	8.03	38.89	953,787	10.47	41.37
5-6	811,948	8.10	43.72	738,951	7.61	45.31	933,160	9.81	48.60	1,036,818	11.38	52.75
6-7	723,909	7.22	50.94	899,406	9.26	54.57	1,011,260	10.64	59.44	962,071	9.46	62.21
7-8	878,368	8.76	59.70	969,071	9.98	64.55	831,542	8.75	68.19	831,940	9.13	71.34
8-9	936,031	9.33	69.03	787,591	8.11	72.66	789,457	8.30	76.49	624,674	6.86	78.20
9-10	750,521	7.49	76.52	727,784	7.48	80.14	576,708	6.07	82.56	551,858	6.06	84.26
10-11	678,820	6.78	83.30	516,350	5.32	85.46	501,353	5.27	87.83	107,019	1.17	85.43
11-12	467,943	4.67	87.97	446,414	4.60	90.06	96,535	1.02	88.85	42,815	.47	85.90
12-13	397,158	3.96	91.93	85,327	.88	90.94	38,548	.41	89.26	14,821	.16	86.06
13-14	75,483	.75	92.68	33,135	.34	91.28	14,041	.15	89.41	148,310	1.63	87.69
14-15	29,235	.29	92.97	13,111	.13	91.41	130,361	1.37	90.78	204,021	3.34	91.03
15-16	12,377	.12	93.09	111,786	1.15	92.56	253,296	2.66	93.44	202,159	2.22	93.25
16-17	87,320	.87	94.06	213,678	2.20	94.76	164,086	1.73	95.17	141,254	1.55	94.80
17-18	181,068	1.81	95.87	135,968	1.40	96.16	111,956	1.16	96.35	88,925	.97	95.77
18-19	113,804	1.13	97.00	91,321	.94	97.10	69,447	.73	97.08	125,632	1.37	97.14
19 and older	300,934	3.00	100.00	261,669	2.60	100.00	278,134	2.82	100.00	260,754	2.86	100.00
Total	10,026,577	100.00	100.00	9,712,884	100.00	100.00	9,507,941	100.00	100.00	9,111,280	100.00	100.00
Age not known	29,890			63,086			36,141			51,164		
Total in use	10,056,567			9,775,950			9,544,082			9,162,444		
Average age of known models	7.22 yrs.			6.97 yrs.			6.74 yrs.			6.71 yrs.		

Based on data from The Reuben H. Donnelley Corp. as of July 1 of each year.

Trucks in Use by Make and by Model Year

OVER HALF ARE UNDER EIGHT YEARS OLD

Model Year	Auto-car	Brock-way	Chev-rolet	Dia-mond T	Dodge, Plymouth	Federal	Ford	G.M.C.	Inter-national	Mack	Reo	Stude-baker	White-Sterling	Willys	All Others	Total	
1958		446	144,670	1,820	1,283	21,690	55	115,829	26,917	47,853	5,565	657	3,030	5,608	8,065	12,391	395,829
1957		857	259,672	3,241	2,542	51,245	43	222,285	56,557	87,279	12,460	2,234	6,517	11,293	11,240	15,447	742,912
1956		915	214,881	3,475	3,263	55,904	45	331,285	83,616	97,761	12,107	2,644	7,588	13,410	9,272	12,033	848,399
1955		1,093	371,702	3,139	3,276	60,483	48	254,568	67,118	96,784	9,703	2,563	12,444	12,027	9,896	9,339	914,163
1954	1,006	1,393	247,538	2,345	2,655	52,411	245	198,722	49,640	77,003	5,799	2,036	5,220	9,431	7,272	6,339	669,355
1953	1,413	1,657	275,027	2,724	2,710	78,648	556	230,148	81,668	75,688	5,429	2,881	23,924	9,458	12,717	7,298	811,948
1952	1,126	1,310	240,828	2,589	2,781	88,388	550	173,835	66,600	88,432	5,431	2,410	24,519	8,507	10,105	6,838	723,909
1951	1,551	1,726	331,151	3,128	3,760	77,718	629	225,049	75,964	84,145	7,241	2,273	26,311	9,425	18,003	8,174	878,368
1950	1,295	1,847	344,656	3,184	4,300	91,838	605	262,771	86,543	70,565	6,128	1,960	30,018	8,467	14,416	7,610	936,031
1949	1,028	1,850	278,111	2,741	3,225	87,475	535	159,786	55,381	72,558	4,011	2,129	55,084	4,803	16,147	6,630	750,521
1948	1,543	1,447	222,515	5,118	4,902	78,843	1,221	163,895	51,275	80,035	5,316	5,106	15,940	6,329	29,546	6,799	679,820
1947	2,156	1,744	131,795	4,141	4,386	67,025	1,582	102,698	26,628	68,272	6,347	3,407	21,944	6,347	12,363	7,508	467,943
1946	1,944	1,393	150,260	1,660	2,943	55,611	904	91,045	12,413	43,457	1,970	2,673	12,362	3,885	9,211	5,427	397,158
1945	917	618	118,652	959	1,029	8,843	423	19,506	5,200	12,916	1,779	853	1,246	2,201	1,185	2,155	75,483
1944	413	271	6,044	376	166	2,656	241	8,611	2,340	5,943	660	187	551	920	518	940	29,235
1943	126	22	1,377	129	68	1,100	136	4,432	1,360	1,793	187	168	290	381	517	441	12,377
1942	487	59	34,895	400	388	12,773	196	24,122	8,180	10,166	678	406	672	949	1,549	1,391	87,320
1941	615	279	66,089	991	1,156	23,996	128	44,924	11,311	23,407	2,029	245	1,324	1,463	611	2,280	181,068
1940	293	141	43,189	712	587	14,642	109	30,080	7,059	12,675	1,271	66	311	558	428	1,673	113,804
Earlier Unid.*	780	367	94,622	2,540	760	35,472	365	110,561	12,089	27,810	2,910	1,007	1,271	1,021	569	7,080	300,934
	615	63	7,858	203	99	2,128	37	6,987	2,096	2,730	302	111	557	467	489	5,326	29,890
Totals	17,408	18,329	3,482,242	45,615	46,267	968,869	8,655	2,779,249	799,186	1,087,262	97,463	35,953	252,833	117,880	174,127	134,219	10,056,567

Unid.*—Unidentified as to model year. Based on Data from The Reuben H. Donnelley Corp. as of July 1, 1958.

HE'S HOT!



HE'S NOT!



KEEP YOUR FLEET NEAT WITH GENERAL MOTORS AIR CONDITIONING!

Sweltering Sam, on the left, is in a lather over his job. Heat's got him down, and he's too wilted to work. He drives in a fleet that's not air conditioned.

Ready Freddie, on the right, is rarin' to go. He's selling instead of sizzling, and he makes his company look good. This fleet is air conditioned by Harrison, the modern sensible way to keep salesmen and drivers neat and cool during summer's soaring temperatures.

Smart fleet owners are reaping the rewards of Harrison Air Conditioning . . . better morale, company prestige, more sales. Harrison's Custom "under-the-hood" system is designed for all 1959 General Motors cars. The thrifty *Cool-Pack* system fits compactly under-the-dash of the new Chevrolets and Pontiacs and most Chevrolet trucks. Ask your GM dealer about Harrison Air Conditioning—a quality General Motors product.

GM *cool air by the carload*
HARRISON
AUTOMOTIVE AIR CONDITIONING

AVAILABLE AT YOUR
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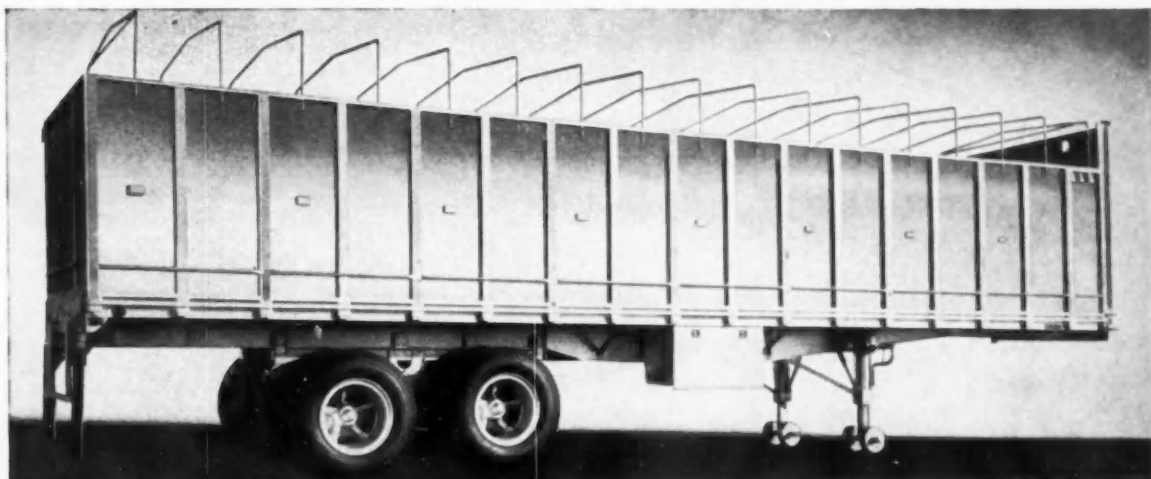


COMPRESSOR BY FRIGIDAIRE

HARRISON RADIATOR DIVISION, GENERAL MOTORS CORPORATION, LOCKPORT, NEW YORK
AUTOMOTIVE RADIATORS • OIL COOLERS • THERMOSTATS • AIR CONDITIONERS • HEATERS • DEFROSTERS

New Hauling Opportunities!

Fruehauf's New, Lightweight, Convertible Platforms Are Designed For Your Extra Convenience, Extra Payload, And Extra Profits!



New Workhorse Steel Rack Platform

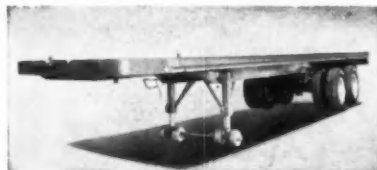
Fruehauf's 1959 Platform Line offers you the strength you need, the features and options you need, with the weight and capacity you need. And newly designed metal racks make it possible to convert your Workhorse unit to an "exterior post open top" in a matter of minutes.

Interchangeable aluminum and steel parts make it possible for you to save up to 3,160 pounds on a 35' Workhorse unit. Among the many money-making options for the versatile Workhorse Platforms are: choice of steel or aluminum for rack panels, tarp bows, outside rails, and crossmembers; and hardwood or aluminum floors.

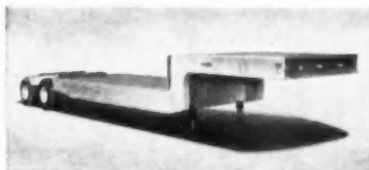


New Lightweight Aluminum Rack Platform

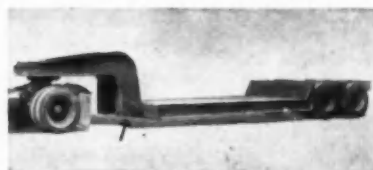
More High-Capacity Units In Fruehauf's Rugged New 1959 Lineup



Multi-Purpose Platforms Convertible To Grain Haul Or Livestock Vans.



Lower Priced, Lighter-Weight Carryalls With New Outside-Design Main Frame.



Exclusive Removable Gooseneck Fruehauf Carryalls For Fast Front-End Loading.



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World's Largest Builder of Truck-Trailers
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☐ PLATFORMS ☐ CARRYALLS ☐ OTHER _____

NAME _____

COMPANY _____

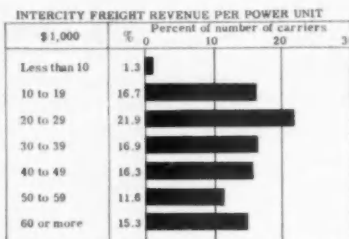
ADDRESS _____

CITY _____ STATE _____



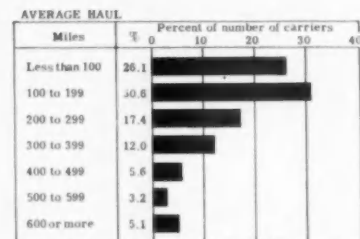
CHECK YOUR FACTS

TRUCK DATA



Source: Transportation Research, Inc. (Trinc)

In thousands of units except bus sales are in actual numbers	New Truck Registrations	Truck Factory Sales—Domestic	Truck Trailer Shipments	Bus Factory Sales—Domestic	Truck and Bus Tires		
					Replacement Shipments	Original Equipment Shipments	Inventory End of Year
1958	725.8	686.1	81.0	3016	9228.4	3375.0	3161.3
1957	858.1	891.4	59.7	3310	8544.6	4040.7	3407.6
1956	894.4	895.2	67.5	3617	8894.2	4547.9	3378.0
1955	957.0	1052.7	76.3	3599	9056.8	4800.3	2815.3
1954	829.1	843.5	54.6	3782	8111.0	3591.2	2544.7



Source: Transportation Research, Inc. (Trinc)

New Truck Registrations by Make and GVW

10,001 TO 16,000-LB TRUCKS DROP IN PER CENT SHARE OF TOTAL

	Year	6,000 lb. or Less	6,001-10,000 lb.	10,001-14,000 lb.	14,001-16,000 lb.	16,001-19,500 lb.	19,501-26,000 lb.	26,001-33,000 lb.	33,001 lb. and over	Total
BROCKWAY	1958					6	49	305	695	959
	1957						64	270	398	738
CHEVROLET	1958	147,106	40,210	8,719	42,803	7,021				245,859
	1957	174,074	46,958	10,904	52,391	6,633				290,960
DIAMOND T	1958					137	845	1,644	300	2,926
	1957					182	1,340	1,579	370	3,472
DIVCO	1958	116	1,380	604		57				2,157
	1957	7	1,752	724		75				2,558
DODGE	1958	18,968	6,896	17	2,491	4,980	2,344	896	194	36,796
	1957	23,386	11,160	489	3,510	6,242	3,981	507	156	49,431
FORD	1958	117,418	31,323		7,850	35,930	11,312	1,558	1,871	207,262
	1957	163,708	40,137	9,495	45,194	9,136	5,646	1,864	2,021	277,301
F.W.D.	1958				2	10	50	200	119	381
	1957				22	35	83	192	101	433
G.M.C.	1958	20,925	8,275	126	6,562	8,706	6,738	3,030	1,071	55,433
	1957	21,968	9,325	2,426	6,690	9,313	7,375	4,165	905	62,165
INTERNATIONAL	1958	26,451	12,167	3,580	4,176	17,061	11,597	8,643	5,358	89,033
	1957	27,721	14,270	3,753	4,954	16,270	13,971	10,248	5,769	96,956
KENWORTH	1958								813	813
	1957							119	887	1,006
MACK	1958						1,058	3,535	7,217	11,810
	1957					134	1,146	4,920	7,112	13,312
PETERBILT	1958							78	315	393
	1957							194	303	497
STUDEBAKER	1958	2,762	610	161	11	525				4,069
	1957	4,277	1,174	237	398	459	2			6,547
WHITE†	1958						923	8,598	2,556	12,077
	1957					66	1,228	9,463	3,365	14,558
WILLYS JEEP	1958	7,650								7,650
	1957	6,678								6,678
WILLYS TRUCK	1958	12,283	2,245							14,528
	1957	14,247	1,080							15,327
ALL OTHERS	1958	28,035				33	105	171	478	28,822
	1957	15,262				13	181	334	356	16,146
TOTAL	1958	381,714	103,106	13,207	83,895	74,480	35,021	28,658	20,887	720,958
	1957	451,326	128,856	28,028	113,226	48,934	35,017	33,955	21,743	886,085
	1956	407,734	153,932	35,874	142,094	48,555	43,172	83,268	*	894,386
	1955	459,595	167,673	35,967	166,077	48,836	32,588	48,265	*	957,001
% OF TOTAL	1954	401,088	151,760	35,432	149,919	32,376	29,091	29,435	*	829,101
	1958	52.85%	14.30%	1.83%	8.86%	10.33%	4.86%	3.87%	2.90%	100.00%
	1957	52.00%	14.67%	3.27%	13.19%	5.70%	4.00%	3.96%	2.53%	100.00%
	1956	45.56%	17.21%	4.01%	15.89%	5.43%	4.83%	7.07%	*	100.00%
	1955	48.02%	17.82%	3.78%	17.35%	4.89%	3.41%	5.05%	*	100.00%
	1954	48.38%	18.30%	4.27%	18.08%	3.91%	3.51%	3.55%	*	100.00%

Data for the year 1958 do not include returns from Oregon for the last six months during which time 4,845 new trucks were registered in that state. † Includes Autocar and Reo.



First heavy-duty truck ever built by the new set of rules

Result: Up to 5,075 lbs. off chassis—into payload!

"Cut as much as 25% off chassis weight... carry the savings in extra payload... keep it just as strong and powerful."

These were the rules that Autocar built so successfully into its new line of *all-lightweight-design* highway

trucks and tractors. But there was another rule that overrode them all:

"Keep it as fine and trouble-free as all other trucks that have carried the Autocar name." So Autocar engineers wrote themselves a new set of rules—and built an entirely new

truck, all the way from the aluminum frame to the roof of the cab. These new "A" models fulfill all of today's (and tomorrow's) highway requirements—*plus* the comfort, safety, reliability and serviceability that have made Autocar famous. See 'em!



Division of
White Motor Company
Exton, Pa.



TRUCK DATA

New Truck Registrations by Make

HERE'S THE SCORE FOR '58

	1958	1957	1956	1955	1954	1953	1952
Autocar	1	1	1	1	1,041	1,713	1,585
Brockway	859	738	884	1,144	1,340	2,080	1,752
Chevrolet	247,191	280,960	302,145	329,791	293,079	327,960	272,248
Diamond T	2,930	3,472	4,037	3,697	2,701	3,398	3,420
Divco	2,184	2,558	3,112	3,298	2,505	2,569	2,782
Dodge	38,976	49,431	57,051	66,208	60,850	82,345	102,129
Federal	1	1	1	58	248	908	941
Ford	206,469	277,301	263,753	295,900	267,799	268,027	179,523
F. W. D.	381	433	481	315	383	259	543
G. M. C.	55,873	62,168	62,266	64,677	68,644	82,296	79,612
International	88,080	96,956	106,014	100,441	84,222	95,404	92,768
Kenneth	880	1,006	1,238	1,182	687	747	705
Mack	11,882	19,312	13,190	10,932	6,098	6,890	7,138
Peterbilt	416	497	609	424	344	332	236
Pontiac	1	1	1	1	1	1	1
Roe	1	2,067	2,974	3,121	2,283	3,488	3,393
Studebaker	4,119	6,547	8,708	10,817	10,193	22,473	28,965
White	12,148	12,491	15,137	14,372	10,340	12,261	10,856
White-Stirling	1	1	1	1	1	1	250
Willis-Jeep	7,590	6,678	9,131	10,441	7,988	9,247	8,591
Willis-Truck	14,880	15,327	14,367	16,811	9,925	8,465	11,762
All Others	29,235	16,146	6,678	3,174	993	794	2,433
Total	725,803	856,065	894,366	957,001	829,101	930,312	812,099

†—Included with "All Others".

‡—Included with White.

Source: R. L. Polk & Co.

New Truck Registrations

725,803 NEW TRUCKS
ADDED IN 1958

Year	Units
1934	402,886
1935	510,663
1936	611,644
1937	618,249
1938	365,349
1939	486,748
1940	559,150
1941	640,697
1942	77,422
1943	82,469
1944	121,289
1945	350,832
1946	625,249
1947	879,132
1948	1,035,174
1949	961,961
1950	1,142,307
1951	1,063,850
1952	812,099
1953	930,312
1954	829,101
1955	957,001
1956	849,366
1957	856,065
1958	725,803

Source: 1934 through March, 1942, and 1946 and later years compiled by R. L. Polk & Co. April, 1942 through July, 1945 data are W.P.B. and O.D.T. and represent certificates of transfer to civilian users.

1958 New Truck Registrations by Makes and by States

CALIFORNIA AND TEXAS LEAD ALL BY BIG MARGIN

STATE	Brockway	Chevrolet	Diamond T	Divco	Dodge	Ford	FWD	GMC	International	Kenworth	Mack	Peterbilt	Studebaker	White	Willis Jeep	Willis Truck	Misc. Dom.	Foreign	Total
Alabama		5,511	31	19	572	3,881	3	1,442	1,684	3	542		26	130	80	88	1	500	14,293
Arizona		3,088	11	21	487	2,484	3	880	656	40	31	6	38	45	85	212	20	320	8,427
Arkansas		4,679	10		473	3,512		1,004	1,310	1	95		56	83	57	48	3	81	11,421
California		25,173	170	113	3,607	24,801	39	4,445	5,272	180	255	241	392	711	660	936	91	5,565	72,661
Colorado		4,099	20	33	752	3,389	7	1,040	1,246	57	92	18	70	83	348	487	29	142	11,922
Connecticut	26	1,807	32	43	354	1,307	6	592	656		140		27	251	193	320	6	602	6,564
Delaware	4	757	44	3	130	440	1	129	368		133		6	100	27	28	4	73	2,286
Dist. of Columbia		669	28	28	110	715		221	202		1			18	5	48	3	139	2,235
Florida	1	7,322	123	156	757	6,743	49	1,881	2,282	8	554		119	638	366	675	4	1,756	23,434
Georgia		6,351	86	27	769	5,671		1,404	1,897	10	339		66	227	87	122	2	827	17,585
Idaho		2,034	10	9	371	1,419	5	629	1,006	51	33	9		93	34	61	2	125	6,149
Illinois		9,790	329	90	1,558	6,534	29	2,235	5,259	452			188	489	187	450	107	919	30,916
Indiana	1	5,820	82	86	949	4,893	3	1,313	2,877	25	449	1	306	455	64	231	56	368	17,979
Iowa		5,467	200	36	653	4,515	3	858	2,521	12	100		132	32	99	1	274	14,986	
Kansas		5,415	56	6	553	4,593	4	1,035	1,894	14	55		97	99	65	259	4	185	14,334
Kentucky		4,291	19	11	582	3,216	1	1,067	1,395		122		40	124	121	151	2	175	11,337
Louisiana		6,918	66		541	5,512		1,314	1,619	6	192		50	116	103	91		475	17,000
Maine	14	1,294	15	32	199	1,053		402	867		71		50	50	126	237	4	168	4,580
Maryland	32	2,441	26	24	611	2,287	2	622	1,162		218		28	202	65	173	6	380	8,679
Massachusetts	57	2,353	16	48	596	2,594	4	831	1,241		270	1	31	336	188	422	17	680	9,705
Michigan	1	7,678	116	149	1,824	7,344	19	1,739	1,958	336			106	370	226	465	54	1,004	23,187
Minnesota		4,496	68	55	731	4,745	9	989	2,338	16	146		136	84	40	142	9	368	14,381
Mississippi		4,724	12		428	3,782		1,069	1,346		77		42	31	64	40	1	143	11,759
Missouri		7,988	78	2	766	5,617	7	1,816	2,513	18	246		100	308	103	177	11	390	20,340
Montana		1,746	8	1	407	1,664	3	470	1,216	27	49	2	68	49	120	386	1	162	6,379
Nebraska		3,324	136	18	408	2,778	12	719	1,736	46	98	21	46	149	110	187	4	162	9,955
Nevada		763	1	4	166	625	1	194	300	1	17	2	31		26	62	1	308	2,522
New Hampshire	5	755	4	20	182	866	3	201	370		74		36	28	107	194	11	261	2,817
New Jersey	197	4,957	151	244	1,113	4,126	19	1,731	2,003	11	966		40	691	293	705	18	1,158	18,023
New Mexico		3,242	12	1	599	2,307	2	927	710	11	87	2	41	69	114	185	3	106	8,418
New York	418	9,440	128	259	2,407	8,512	49	2,691	6,160	4	1,082		136	1,158	829	1,550	133	2,593	37,548
North Carolina		6,284	99	32	770	5,713	3	1,367	1,900	1	529		89	387	153	176	2	383	17,898
North Dakota		1,367	13	7	325	1,384		302	1,246	1	11		41	5	15	40	2	58	4,817
Ohio	12	8,344	170	157	1,804	7,942	17	2,286	3,706		544		147	827	232	538	25	1,139	27,690
Oklahoma		6,352	16	3	615	5,378	1	1,211	1,812	3	129		89	173	66	97	13	193	16,749
Oregon*		3,294	9	15	490	2,587	4	874	1,529	73	140	44	97	144		579	13	748	10,764
Pennsylvania	180	9,258	185	187	2,562	7,508	8	2,422	4,841	2	1,339		260	921	661	1,367	27	1,680	33,408
Rhode Island	4	750	7	10	183	1,144		189	294	1	81		7	41	23	38	1	191	2,964
South Carolina	1	3,036	1	4	350	2,289		520	895		214		28	131	41	65		259	7,634
South Dakota		1,589	16	10	319	1,576	5	402	1,247	3	17		66	19	49	145	7	89	5,559
Tennessee		4,896	25	9	604	3,948	2	1,296	1,441	1	387		44	316	77	106	5	296	13,455
Texas		25,355	133	14	2,449	19,496	6	4,255	6,466	47	619	0	322	1,316	450	475	27	782	64,942
Utah		1,456	10	4	441	1,534	5	539	723	39	81	21	27	71		184	17	128	5,035
Vermont	2	634	4	8	107	548		253	408		29		21	19	132	216	2	145	2,524
Virginia	2	4,752	31	27	806	4,033	2	915	1,649	355			62	201	124	342	4	480	13,805
Washington		3,335	24	40	720	3,015	14	1,046	1,505	127	82	38	72	69	93	259	9	818	11,275
West Virginia		2,297	28	36	526	2,022	2	687	773		115		71	100	250	406	6	173	7,490
Wisconsin		4,512	54	54	640	3,583	29	976	2,597	2	208		80	191	131	250	20	591	13,818
Wyoming		1,251	8		212	1,059		421	594	18	30	1	26	27	92	256	3	80	4,080
Total	959	247,191	2,930	2,164	36,976	206,489	381	55,873	89,690	860	11,982	416	4,119	12,148	7,595	14,915	815	28,320	725,803

Source: R. L. Polk & Co.

* Data secured from Department of Motor Vehicles, State of Oregon.

† Included under Willis Truck.

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Power Brake is Hydrovac

because . . .

Vacuum power provides instant, effortless power braking *plus maximum dependability and safety*—even if power should ever fail, brakes can be applied manually.

Vacuum power saves dead weight. This can add several hundred extra pounds to every pay-load. And extra pounds mean extra profits.

Vacuum power does the job simpler and better with less maintenance and lower original cost!

Vacuum power steals no horsepower as it is completely free of compressor drain on engine power.

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HYDROVAC (VACUUM HYDRAULIC) POWER BRAKING BY BENDIX

Bendix PRODUCTS
DIVISION South Bend, IND.





CHECK YOUR FACTS

TRUCK DATA

Truck Factory Sales by GVW, 1954-1958

16,000 TO 19,500-LB GROUP INCREASES ITS PER CENT SHARE OF TOTAL

	6,000 lb. and less	6,001-10,000 lb.	10,001-14,000 lb.	14,001-16,000 lb.	16,001-19,500 lb.	19,501-26,000 lb.	26,001-33,000 lb.	Over 33,000 lb.	Total
Factory Sales									
1958	446,292	127,157	14,006	81,798	96,526	50,356	29,781	28,382	874,278
1957	546,734	160,409	36,857	162,888	72,100	53,163	37,533	33,659	1,103,343
1956	436,676	209,401	39,918	192,167	82,493	56,492	81,280	**	1,100,417
1955	585,896	212,571	46,905	225,755	65,717	43,422	64,827	**	1,245,083
1954	462,515	186,733	39,073	195,121	48,560	45,111	40,943	**	1,038,058
Per Cent of Total									
1958	51.1%	14.5%	1.6%	9.4%	11.0%	5.8%	3.4%	3.2%	100.0%
1957	49.6%	14.5%	3.3%	14.8%	6.5%	4.8%	3.4%	3.1%	100.0%
1956	39.6%	19.0%	3.6%	17.5%	7.5%	5.1%	7.4%	**	100.0%
1955	47.0%	17.1%	3.8%	18.1%	5.3%	3.5%	5.2%	**	100.0%
1954	46.5%	18.0%	3.8%	18.8%	4.7%	4.3%	3.9%	**	100.0%

From data supplied by the Automobile Manufacturers Assn.

**—Included with 26,001 to 33,000 group.

Factory Sales of Special Types of Vehicles

DESPITE RECESSION, DIESEL TRUCKS SHOW GAIN

Type of Vehicle	1958	1957	1956	1955	1954	1953	1952
Station Wagons ¹	706,414	918,371	686,696	780,151	364,234	310,178	189,651
Motor Coaches ²	3,016	3,833	4,064	4,023	4,118	4,067	5,375
School Bus Chassis	19,719	23,465	22,714	26,535	22,465	21,264	19,452
Trucks with Cab-over-Engine	40,948	53,053	44,812	45,815	26,268	24,712	19,592
Trucks with Diesel Engines	25,172	24,455	25,797	16,876	10,546	10,872	13,165
Buses with Diesel Engines	2,601	3,174	3,481	3,333	2,832	2,732	2,671
Trucks with 6 wheels, 3 axles	19,313	25,684	33,920	26,060	16,364	14,864	15,585
Multi-Stop Trucks	22,364	24,801	26,736	23,853	19,507	19,246	18,493
Ambulances and Funeral Vehicles	N.A.	2,817	2,201	2,661	2,880	3,034	2,662

Source: Automobile Manufacturers Assn.

¹—On both passenger car and truck chassis.²—Including integral school buses.

Total U. S. Truck Registrations

REACH 10.7 MILLION

Year	Units	% Gain
1924	2,134,724	32
1925	2,440,654	14
1926	2,784,222	13
1927	2,914,018	5
1928	3,113,999	7
1929	3,379,854	8
1930	3,466,019	3
1931	3,466,571	— 0.6
1932	3,229,315	— 0.7
1933	3,227,357	— 0.6
1934	3,409,335	5.5
1935	3,685,705	7.1
1936	3,981,755	9.1
1937	4,107,244	3.1
1938	4,210,022	2.5
1939	4,419,893	5.0
1940	4,604,722	4.2
1941	4,889,662	5.5
1942	4,644,206	— 4.4
1943	4,549,862	— 2.0
1944	4,516,157	— 0.7
1945	4,906,778	8.8
1946	5,749,643	17.1
1947	6,612,922	15.0
1948	7,356,553	11.2
1949	7,615,431	3.5
1950	8,185,948	7.5
1951	8,696,224	6.2
1952	8,988,560	3.4
1953	9,208,864	2.5
1954	9,744,398	6.0
1955	9,974,811	2.4
1956	10,320,567	3.5
1957	10,601,316	2.8
1958	10,721,796	1.1

Total Truck Registrations by States

CALIFORNIA CONTINUES TO HAVE MOST

	1958	1957	1956	1955	1954	1953
Alabama	199,050	196,789	191,754	185,087	166,453	170,753
Arizona	105,533	99,037	90,000	85,785	82,871	76,657
Arkansas	185,007	182,402	181,574	177,627	171,393	167,827
California	924,270	840,202	808,720	744,020	672,943	640,679
Colorado	184,219	177,848	166,745	163,266	152,250	145,352
Connecticut	108,248	110,203	102,404	104,058	103,278	94,112
Delaware	38,620	35,424	33,219	29,211	25,982	23,919
District of Columbia	17,000	17,750	19,400	19,387	18,005	18,478
Florida	276,852	260,783	252,763	231,807	213,147	200,668
Georgia	251,828	247,685	240,544	226,753	226,415	215,341
Idaho	90,000	86,000	84,307	87,471	84,627	70,161
Illinois	415,800	434,755	412,000	378,240	369,606	363,963
Indiana	322,236	320,000	309,434	304,457	283,505	270,162
Iowa	222,850	218,100	214,590	211,788	205,075	200,145
Kansas	264,036	242,830	262,952	251,188	241,657	231,590
Kentucky	220,300	212,354	209,800	209,881	195,176	188,997
Louisiana	206,724	205,217	196,573	194,964	186,452	175,469
Maine	70,539	70,243	71,440	74,396	71,878	71,775
Maryland	132,000	135,476	133,884	129,220	142,786	103,792
Massachusetts	175,120	180,166	179,294	174,166	174,378	168,595
Michigan	381,520	381,414	380,773	372,646	362,218	340,618
Minnesota	249,567	241,170	237,307	229,891	221,333	215,430
Mississippi	169,762	171,486	174,544	169,223	166,723	171,792
Missouri	319,400	294,907	304,430	301,306	281,130	272,746
Montana	96,731	101,177	100,001	100,524	93,037	82,438
Nebraska	158,000	148,712	143,221	145,516	145,806	143,499
Nevada	35,057	29,794	28,823	26,488	25,209	23,486
New Hampshire	36,318	34,900	33,000	43,792	42,086	34,009
New Jersey	262,408	273,278	248,000	239,906	224,269	219,139
New Mexico	95,000	82,441	84,000	82,014	76,425	76,700
New York	495,571	492,000	486,000	496,845	645,641	476,764
North Carolina	280,780	297,306	276,372	266,270	247,403	241,488
North Dakota	104,702	103,000	96,176	94,564	82,482	90,165
Ohio	420,000	419,000	405,064	397,122	379,934	373,179
Oklahoma	263,000	250,949	247,619	250,708	240,112	231,118
Oregon	68,385	68,994	66,905	78,167	84,520	89,660
Pennsylvania	625,000	517,189	603,000	598,465	533,660	536,530
Rhode Island	37,673	36,146	37,400	36,634	36,046	34,210
South Carolina	137,969	128,821	128,297	123,679	128,326	127,534
South Dakota	87,821	86,000	84,027	82,807	81,519	76,766
Tennessee	216,090	219,000	215,000	210,711	210,905	207,601
Texas	803,300	806,100	799,000	789,158	720,603	686,795
Utah	70,000	67,600	64,500	60,653	57,380	52,676
Vermont	15,000	15,400	15,600	15,170	14,967	15,040
Virginia	220,378	216,708	217,388	208,544	196,046	191,520
Washington	229,960	231,838	234,691	235,007	184,771	178,564
West Virginia	120,577	130,000	114,000	110,957	113,463	118,689
Wisconsin	243,470	244,016	235,846	224,053	253,773	231,638
Wyoming	54,000	53,623	52,176	51,127	49,127	47,132
Total	10,721,796	10,801,316	10,320,587	9,974,811	9,744,398	9,208,664

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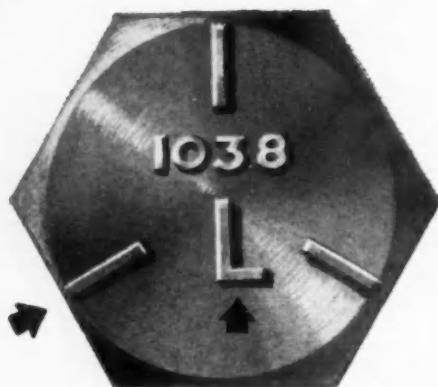
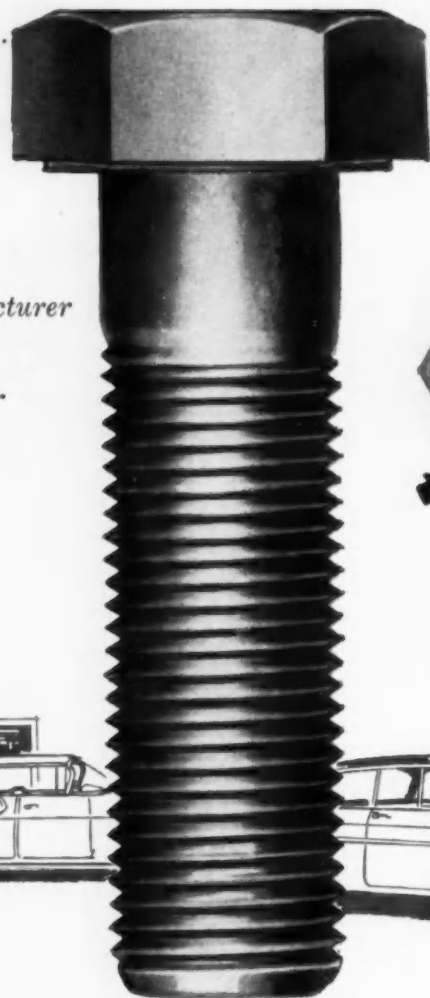
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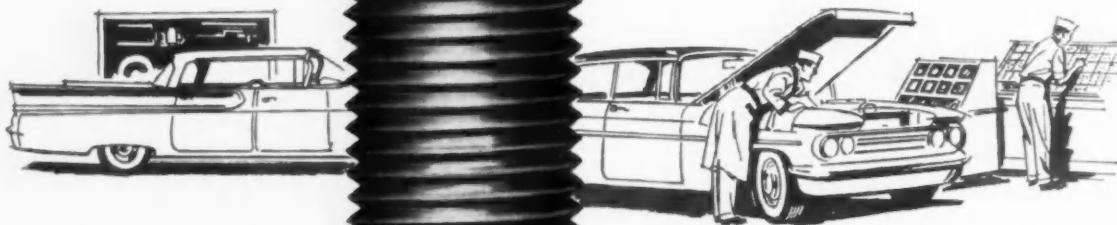
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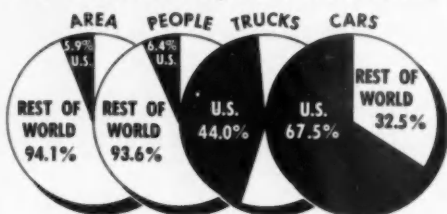
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CHECK YOUR FACTS

TRAILER DATA

67.5% of World's Passenger Cars are in United States



SOURCE: Automobile Manufacturers Association

Trailer Registrations

ALMOST FOUR MILLION

State	Trailers—Semi-trailers		
	Tourist	Commercial	Total
Alabama		19,164	19,164
Arizona	41,749	10,947	52,696
Arkansas		42,768	42,768
California		676,678	676,678
Colorado		58,400	58,400
Connecticut	28,311	11,961	40,272
Delaware		10,910	10,910
District of Columbia		1,421	1,421
Florida	197,434	31,375	228,809
Georgia	1,910	52,647	54,557
Idaho	33,400	400	33,800
Illinois		132,500	132,500
Indiana	7,241	144,437	151,678
Iowa		125,309	125,309
Kansas		33,494	33,494
Kentucky	6,600	7,000	13,600
Louisiana	41,722	22,180	63,902
Maine		35,938	35,938
Maryland		30,706	30,706
Massachusetts		96,392	96,392
Michigan	22,900	313,185	336,085
Minnesota	111,835	40,421	152,256
Mississippi	12,393	10,285	22,678
Missouri	64,000	36,000	100,000
Montana	16,598	13,615	30,213
Nebraska	3,000	11,150	14,150
Nevada		14,643	14,643
New Hampshire		17,711	17,711
New Jersey		52,492	52,492
New Mexico		19,826	19,826
New York		155,930	155,930
North Carolina	88,633	24,505	113,138
North Dakota	4,027	1,375	5,402
Ohio	15,000	223,000	238,000
Oklahoma	7,600	16,350	23,950
Oregon	19,561	13,407	32,968
Pennsylvania	4,500	110,000	114,500
Rhode Island		15,833	15,833
South Carolina	2,361	11,289	13,650
South Dakota		37,999	37,999
Tennessee	6,500	(2)	6,500
Texas	27,000	205,000	232,000
Utah		9,000	9,000
Vermont		11,000	11,000
Virginia	38,948	23,707	62,655
Washington	92,481	20,742	113,223
West Virginia	13,192	2,855	16,047
Wisconsin	8,695	19,298	27,993
Wyoming	7,500	14,000	21,500
Total	1,023,081	2,315,545	3,338,626

Trailer Shipments

INCLUDING TRAILER CHASSIS

	Production	Shipments	
		Units	Value
1958	49,338	50,988	\$269,301,000
1957	60,755	62,096	315,788,000
1956	71,140	67,824	329,230,000
1955	77,867	76,468	371,413,000
1954	85,398	84,582	345,501,000
1953	97,102	96,698	294,649,000
1952	87,076	87,973	228,378,000
1951	87,384	64,691	245,315,000
1950	64,617	65,966	229,685,000
1949	33,097	34,273	119,086,000
1948	44,478	46,960	139,996,000

Source: Industry Division, Bureau of the Census.

Trailer Shipments by Type

ALUMINUM GENERAL FREIGHT VANS GAIN

Type of Trailer	1958	1957	1956	1955
Vans:				
Insulated and refrigerated	3,453	4,497	5,164	5,203
Steel	337	596	1,055	1,117
Aluminum	3,116	3,901	4,109	4,086
Semi-insulated	513	676	N.A.	N.A.
Steel	119	119	N.A.	N.A.
Aluminum	557	557	N.A.	N.A.
Furniture	1,468	1,562	2,110	1,943
Steel	1,468	1,562	2,110	1,732
Aluminum	1,468	1,562	2,110	211
All other closed-top vans	18,166	20,835	25,670	34,387
Steel	6,072	9,259	11,265	10,865
Aluminum	12,094	11,676	14,385	23,522
Open-top vans	2,368	3,191	3,738	4,565
Steel	1,009	1,585	1,753	2,062
Aluminum	2,132	1,606	1,985	2,503
Total—Vans	25,965	30,852	36,682	46,096
Tanks:				
Petroleum	4,004	4,664	5,433	5,058
All other	1,310	1,661	1,069	644
Total—Tanks	5,314	6,325	6,502	5,712
Pole, pipe and logging:				
Single axle	325	519	507	789
Tandem axle	567	709	1,300	1,372
Total—Tanks	892	1,228	1,807	2,161
Platforms:				
Racks, livestock and stake	1,249	2,716	1,004	1,300
Grain bodies, all types	1,079	1,241	1,836	1,016
Flats, all types	6,329	6,654	8,441	8,328
Total—Platforms	8,657	10,713	11,821	10,644
Low-bed heavy haulers	2,335	2,884	2,995	2,931
Dump trailers	2,426	2,070	2,057	2,128
All other trailers	2,156	3,608	2,750	4,034
Total—Complete Trailers	47,746	57,690	64,164	73,708
Trailer Chassis	3,242	4,406	3,660	2,760
Total—Trailers and Chassis	50,988	62,096	67,824	76,468

N.A.—Not available. †—Includes Food and L.P.G. trailers.

**—Includes off-highway, auto transport, public utility trailers and converter dollies.

Source: Industry Division, Bureau of the Census.

Trailer Shipments by Months

OCTOBER WAS TOP MONTH IN '58

	1958		1957	
	Units	Value	Units	Value
January	3,397	\$18,740,000	4,915	\$25,700,000
February	3,024	16,622,000	5,136	27,244,000
March	3,468	18,977,000	5,382	27,767,000
April	3,559	19,111,000	5,411	29,179,000
May	3,882	20,561,000	5,628	29,088,000
June	3,766	19,974,000	4,820	25,651,000
July	3,890	20,912,000	4,374	22,733,000
August	4,219	22,792,000	5,064	26,483,000
September	4,442	24,270,000	4,475	24,387,000
October	4,989	28,026,000	4,924	25,173,000
November	4,205	23,620,000	4,024	20,974,000
December	4,915	27,366,000	3,557	18,974,000
Total	47,746	\$260,971,000	57,690	\$304,351,000

Source: Industry Divisions, Bureau of the Census.

"Impact breaks were a costly problem for us until..."



we began using nylon cord tires"

reports Mort Watkins, Tire Maintenance Engineer, Boutell Driveaway Company, Flint, Michigan



Mr. Verlin Miller, Maintenance Manager, shows Mr. Watkins one of the dozens of safety awards won by Boutell Driveaway. Because nylon protects against the major causes of blowouts, driving on nylon is safer.

"With an operation as big as ours, tire repairs and road delays can be pretty costly. Since we started using nylon cord tires 24 months ago, we've had absolutely no problem with impact breaks. Result? Road delays and repair costs cut in half.

"Our vans carry an average of four cars—between 19,000 and 20,000 pounds—to all parts of the country. Four hundred of them travel at top speeds in all kinds of weather over every conceivable road surface. We need a tire that can shrug off any amount of road shock—the toughest, most dependable tire on the market—and that's a nylon cord tire."

PROVE TO YOURSELF that the advantages of nylon cord tires add up to big savings under any road and load conditions. Ask your dealer about nylon cords today. Nylon cord tires are available from all tire makers.

DuPont nylon for tire cord



BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

THE SAFEST, STRONGEST TIRES ARE MADE WITH

NYLON



CHECK YOUR FACTS

BUS DATA

Transit Riders

(Millions of Persons)

Year	Railway		Trolley Coaches	Motor Buses	Grand Total
	Surface	Subway and Elevated			
1953	2,036	2,040	4,076	1,566	10,902
1954	1,489	1,812	3,401	1,367	12,362
1955	1,207	1,870	3,677	1,202	11,529
1956	876	1,880	2,756	1,142	10,941
1957	679	1,843	2,522	993	10,399

Source: American Transit Assn.

New Transit Equipment

Year	Railway		Trolley Coaches	Motor Buses	Grand Total
	Surface	Subway and Elevated			
1953	0	0	0	2,246	2,246
1954	0	260	260	2,225	2,485
1955	0	288	288	2,098	2,429
1956	0	376	376	0	3,135
1957	0	469	469	0	2,419

Source: American Transit Assn.

Vehicle Miles and Taxes

HOW THEY ARE DIVIDED AMONG USERS

User Groups	Registration	Vehicle-miles traveled ¹	Highway-user taxes paid ²	Average rate of payment		
				Per vehicle	Per vehicle-mile	Per ton-mile ³
Passenger cars	83.83%	81.46%	65.82%	\$ 50	0.54¢	0.27¢
Buses	.22	.60	1.68	470	1.85	0.20
Trucks	15.95	17.94	32.50	131	1.21	0.18
Straight	15.07	14.38	20.48	87	0.95	0.26
Combinations	.88	3.56	12.04	881	2.25	0.12
Total vehicles	100.00	100.00	100.00	64	0.67	0.23

Source: Bureau of Public Roads, based on latest available data (1955). ¹—Publicly-owned vehicles other than transit buses are omitted. ²—Excludes (1) fines and penalties, amounting to \$17,650,000 and (2) tax payments of \$16,697,000 assigned to light trailers and \$8,000,000 assigned to motorcycles. ³—Based on average operating GVW.

Intercity Passenger Miles Traveled

AIR LINES SHOW MOST GAIN, LARGELY AT RAILROAD'S EXPENSE

Year	Total Intercity Travel	Private Automobiles		Railroads		Intercity Buses		Air Lines		Waterways	
		Pagr. Miles	% of Total	Pagr. Miles	% of Total	Pagr. Miles	% of Total	Pagr. Miles	% of Total	Pagr. Miles	% of Total
1957	721.3	639.0	88.6	26.2	3.6	25.2	3.5	26.9	4.0	2.0	0.3
1956	696.8	617.7	88.4	28.5	4.1	25.2	3.6	25.5	3.6	1.9	0.3
1955	664.5	585.8	88.2	28.7	4.3	25.5	3.8	22.7	3.4	1.7	0.3
1954	625.1	546.8	87.8	29.5	4.7	25.6	4.1	19.6	3.1	1.7	0.3
1953	606.8	529.2	86.9	32.3	5.3	26.4	4.7	17.4	2.6	1.5	0.3

Source: Compiled by National Assn. of Motorbus Operators from records of Interstate Commerce Commission.

Revenue Bus Factory Sales

JULY WAS BEST MONTH

	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949
January	327	269	253	190	405	254	776	661	219	658
February	308	236	276	176	326	190	625	821	133	416
March	342	341	434	325	346	236	669	829	199	545
April	344	506	371	619	379	145	697	819	268	514
May	241	462	362	313	323	367	423	742	412	564
June	91	389	503	300	351	380	494	836	598	632
July	350	309	307	296	245	376	224	665	397	439
August	265	315	429	434	309	447	349	783	457	444
September	216	243	368	223	326	346	387	743	423	296
October	149	233	296	469	372	519	369	1,174	553	322
November	167	241	233	350	305	371	319	833	584	306
December	208	287	228	410	427	424	231	945	665	369
Total	3,016	3,833	4,064	4,023	4,118	4,067	5,379	9,483	4,908	5,511

As reported by the Automobile Manufacturers Assn. From plants located in the United States.

Bus Factory Sales by Type of Bus

Year	U. S. Domestic Market				Total Export Market	Total Sales		Average Wholesale Value
	City Type	Intercity Type	Special Type†	Total Domestic Market		Units	Wholesale Value	
1956	1,732	795	153	2,680	336	3,016	N.A.	N.A.
1957	1,857	1,100	353	3,310	523	3,833	\$ 73,993,000	\$19,304
1958	2,501	722	384	3,617	447	4,064	75,536,000	18,660
1955	2,317	916	356	3,589	424	4,023	74,207,000	18,446
1954	2,407	834	541	3,782	336	4,118	71,873,000	17,478
1953	2,290	855	586	3,731	326	4,057	68,271,000	16,828
1952	1,997	691	1,823	4,511	864	5,375	77,339,000	14,389
1951	4,764	1,233	2,797	8,784	676	9,460	135,650,000	14,339
1950	2,746	581	683	4,012	896	4,908	66,248,000	13,498
1949	3,402	680	502	4,584	617	5,111	72,845,000	13,236

Source: Automobile Manufacturers Assn. Chart does not include nonintegral school buses. †—Including integral school buses.



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MIDLAND COMPRESSOR — Heart of Midland Air Power Systems

Midland products include:

Air brakes for the truck and trailer industry
Vacuum power brakes for the automotive industry
Equipment for the Transit industry
Control devices for the construction industry
Midland Welding Nuts for assembling metal parts

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**MIDLAND-ROSS
CORPORATION**



Owosso Division • Owosso, Michigan

ONE OF THE "400" LARGEST AMERICAN CORPORATIONS



For Refrigerated Trucks...

the big Insulation news for 1959 is

JOHNS-MANVILLE FIBER GLASS

With L-O-F Glass Fibers Company joining the Johns-Manville family, your J-M representative can now supply fiber glass blanket insulation to meet a wide range of exacting requirements for refrigerated truck bodies.

For lightweight, resilient insulation—Johns-Manville Microlite and Super-Fine keep selected temperatures constant under extreme conditions. Because of unusually low density... as low as $\frac{1}{2}$ pound per cubic foot... the material is exceptionally light and efficient. And it won't shake down under vibration.

For high efficiency in minimum space—these economical J-M fiber glass insulations are made with long, fine glass fibers which create millions of trapped air cells... provide high insulation efficiency without excessive thickness or weight... permit greater payloads. Easy to install.

For reduced moisture pickup—developed especially for refrigerated truck bodies, new J-M Transulite is made from fine glass fibers with a special binder to cut moisture pickup to a minimum and help maintain full insulation efficiency—even when frequent opening of doors exposes it to the effects of condensation.

In the truck body industry, as in many others, buyers of fiber glass products will now be served by an enlarged staff of J-M sales and technical personnel operating out of 56 sales offices—by expanded distribution facilities—by the addition of 7 strategically located plants and by expanded research and product development of fiber glass products.

Call your Johns-Manville representative or write to Johns-Manville, Box 14, New York 16, New York. In Canada, Port Credit, Ontario.

JOHNS-MANVILLE





CHECK YOUR REGS

OPERATION

SECTION

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CHECK YOUR REGS

STATE SIZE & WEIGHT LIMITS

STATE	SIZE RESTRICTIONS							GROSS WEIGHT			(See NOTE) PRACTICAL GROSS WEIGHT LIMITS (In thousands of pounds)												
	Width (Inches)	Height (Feet)	LENGTH			Minimum Tandem Axle Spacing	(LEGAL LIMITS)			Below Limits Apply to Pneumatic Tires Unless Otherwise Specified													
			Single Unit	Tractor Semi-Trailer	Other Combinations		Number of Trailers (Semi-Trailer - 1/2)	Pounds Per Inch of Tire Width	Per Axle (1000 lb.)	Tandem Axles 4 feet apart (1000 lb.)	4-Wheel Single Unit	6-Wheel Single Unit	4-Wheel Tractor 2-Wheel Semi-Tr.	4-Wheel Tractor 4-Wheel Semi-Tr.	6-Wheel Tractor 4-Wheel Semi-Tr.	4-Wheel Truck 4-Wheel Trailer	4-Wheel Truck 6-Wheel Trailer	6-Wheel Truck 4-Wheel Trailer	6-Wheel Truck 6-Wheel Trailer	Tractor, Semi-T. & Full Trailer Combs.			
TVY Ala.	96	m 12½	35k	50	NP	½	40	NS	18	30	36	54	54	64.6	64.6	NP	NP	NP	NP	NP	NP	NP	NP
Ariz. Y	102	13½	40	65	65	1½	40	NS	18	32	36	50	54	68	76.8	72	76.8	76.8	76.8	76.8	76.8	76.8	76.8
Ark. V	96	13½	35k	50	50	NR	40	NS	18	32	18b	32b	36b	50b	56b	54b	56b	56b	56b	56b	56b	56b	56b
Cal. Y	d 96	13½	35ak	60	60	NR	NS	NS-P 600-S	18	32	36	50	54	68	76.8	72	76.8	76.8	76.8	76.8	76.8	76.8	76.8
Colo. X	e 96	13½w	35ak	60	60	2	40	NR	18-1 16-J	36	30	48	*54	*72	*73.6	72	*73.6	*73.6	*73.6	*73.6	*73.6	*73.6	*73.6
Conn. T	102	12½	48	45	NP	½	NS	NS-P 800-S	22.4	36	32	50	50	60	60	NP	NP	NP	NP	NP	NP	NP	NP
Del. Y	96	m 12½	35k	50	60	1½	48	700	20	36	30c	46c	48c	60c	60c	52c	52c	60c	60c	60c	60c	60c	60c
VY D. C.	96	12½	35	50	50	1 or ½	48	NS	22	38	44	60	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	NP
Fla. Y	96	m 12½	40a	50	50	1 or ½	40	550	20	40	40	60	60	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	NP
Ga. Y	96	13½	38.5kn	50	50	1 or ½	40	NR	20.3in 16-Jn	40.6n	40.6n	61n	63.2n	63.2n	63.2n	63.2n	63.2n	63.2n	63.2n	63.2n	63.2n	63.2n	NP
Idaho Y	e 96	14	35f	60	65	1½	NS	900 ^o	18	32	36	50	54	68	76.8	72	76.8	76.8	76.8	76.8	76.8	76.8	76.8
Ill. Z	96	13½	42	50	50	1½	40	600	18	32	36	41	45	58	68	63	72	72	72	72	72	72	72
Ind. Y	96	13½	36k	50	50	1½	40	600	18	32	36	50	54	68	72	72	72	72	72	72	72	72	72
TY Iowa	96	m 12½	35ak	50	NP	½	40	NR	18	32	36	50	54	65.4	65.4	NP	NP	NP	NP	NP	NP	NP	NP
Ken. Y	e 96	12½	35ak	50	50	1 or ½	40	NR	18-1 16-J	32	36	50	54	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	NP
ZT Ky.	96	13½	35	50	NP	½	42	600	18	36	36	50	54	59.6	59.6	NP	NP	NP	NP	NP	NP	NP	NP
La. Y	96	m 12½	35ak	50	60	1 or ½	40	450	18-1 16-J	32	18b	32b	36b	50b	64b	54b	54b	68b	68b	68b	68b	NP	NP
Me. Y	96	12½	50	50	50	1 or ½	48	600	22-G	32	32	50	50	60	60	60	60	60	60	60	60	NP	NP
X Md.	96	m 12½	55	55	55	NR	NS	NS	22.4	40	44.8	62.4	65	65	65	65	65	65	65	65	65	65	65
VT Mass.	e 96	NR	35k	48	NS	1 or ½	NS	600	22.4	36	44.8	60	60	60	60	47.8	47.8	63	63	63	63	NP	NP
Mich. Y	96	13½	35kv	55	55	1½	42	700	18-P 16-S	26p	36-W	44-W	54-W	68-W	76-W	72-W	86-W	86-W	94-W	94-W	104-W	104-W	104-W
Y Minn.	e 96	m 12½	40	50	50	1 or ½	40	NR	18-P 10.8-S	32	36	50	54	68	72.5a	72	72.5a	72.5a	72.5a	72.5a	72.5a	72.5a	NP
YZ Miss.	96	m 12½	35ak	50	50	1 or ½	40	Table	18-1 16-J	28.6p	27	41	45	58	59	59	59	59	59	59	59	NP	NP
Mo. Y	96	12½	35ak	50	50	NR	40	600	18-1 16-J	32	36	50	54	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6
Y Mont.	e 96	13½	35k	60	60	1 or ½	40	NS	18	32	36	50	54	68	76.8	72	76.8	76.8	76.8	76.8	76.8	NP	NP
Y Nebr.	96	13½	35ak	50	50	1 or ½	40	NR	18	32	36	50	54	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	NP	NP
Y Nev.	96	NR	NR	NR	NR	NR	42	600	18	32	36	50	54	68	76.8	72	76.8	76.8	76.8	76.8	76.8	76.8	76.8
Y N. H.	96	13½	35u	45	45	NR	NS	600	22.4	36i	33.4	40j	52.8	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4
N. J. Y	96	13½	35	50	50	1 or ½	40	600	22.4h	32	30	40	60	60	60	60	60	60	60	60	60	NP	NP
VY N. M.	e 96	13½	40	65	65	1½	40	600	21.6	34.3	43.2	55.9	64.8	77.5	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4
X N. Y.	96	13	35ak	50	50	1 or ½	46	800-P 640-S	22.4	36	44.8	58.4	65	65	65	65	65	65	65	65	65	NP	NP

STATE	SIZE RESTRICTIONS							GROSS WEIGHT		(See NOTE)	PRACTICAL GROSS WEIGHT LIMITS (In thousands of pounds)												
	Width (Inches)	Height (Feet)	LENGTH				(LEGAL LIMITS)			Below Limits Apply to Pneumatic Tires Unless Otherwise Specified													
			Single Unit	Tractor Semi-Trailer	Other Combinations	Number of Trailers (Semi-Trailer-½)	Minimum Tandem Axle Spacing	Pounds Per Inch of Tire Width	Per Axle (1000 lb.)	Tandem Axles 4 feet apart (1000 lb.)	4-Wheel Single Unit	6-Wheel Single Unit	4-Wheel Tractor 2-Wheel Semi-Tr.	4-Wheel Tractor 4-Wheel Semi-Tr.	6-Wheel Tractor 4-Wheel Semi-Tr.	4-Wheel Truck 4-Wheel Trailer	4-Wheel Truck 6-Wheel Trailer	6-Wheel Truck 4-Wheel Trailer	6-Wheel Truck 6-Wheel Trailer	Tractor, Semi-T. & Full Trail. Combs.			
N. C.	96	12½	35ak	50	50	1 or ½	48	600	18-19 In 17-Jn	38n	L 31.5n	L 46.2n	48.2n	58.8n	58.8n	58.8n	58.8n	58.8n	58.8n	58.8n	58.8n	NP	
N. D.	96	13½w	40a	50	50	1 or ½	48	550	18	38	36	48	54	*61.5	*61.5	*61.5	*61.5	*61.5	*61.5	*61.5	*61.5	NP	
Ohio	96	13½	35ak	50	60	NR	NS	650	18	24p	38	50.5	57	69.5	*71.6	76	78	78	78	78	78	78	
Okla.	96	13½	35k	50	50	1 or ½	40	650	18	32	36	50	54	66	66	66	66	66	66	66	66	NP	
Ora.	96	12½	38	50g	50y	1 or ½	48	550	18	32	36	50	54	60	60	60	60	60	60	60	60	NP	
Pa.	96	12½	35kr	50	50	1 or ½	36	800	22.4	36	H 33	H 47	H 50	H 60	H 60	H 62	H 62	H 62	H 62	H 62	H 62	NP	
R. I.	102	12½	40	50	50	1 or ½	40	800	22.4	NS	36	44	50	50	50	72	80	80	88	88	88	NP	
S. C.	96	12½	40a	50	50	1 or ½	40	NR	20-1 18-J	32	40	52	60	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	NP	
S. D.	96	13	25k	50	60	1 or ½	40	600	18-1 16-J	32	36	50	54	68	73.2	72	73.2	73.2	73.2	73.2	73.2	NP	
Tenn.	96	12½	39k	50	50	1 or ½	40	NS	18	32	36	50	54	61.5	61.5	39.5	39.5	53.5	53.5	53.5	53.5	NP	
Tex.	96	13½	35k	50	50	1 or ½	40	650-1 600-J	18-1 16-J	32	36	50	54	56.4	56.4	56.4	56.4	56.4	56.4	56.4	56.4	NP	
Utah	96	14	45	60	60	2	40	NS	18-P 13.5-S	33	36	51	54	69	79.9	72	79.9	79.9	79.9	79.9	79.9	NP	
Vt.	96	12½	50	50	50	1 or ½	40	600	NR	NR	30	40	50	60	60	60	60	60	60	60	60	NP	
Va.	96	12½	35k	50	50	1 or ½	40	650	18	32	36	50	54	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	NP	
Wash.	96	12½	35k	60	60	1½	42	500	18	32	28	36	46	60	68	64	64	72	72	72	72	NP	
W. Va.	96	12½	35ak	50	50	1 or ½	40	NR	18	32	36	50	54	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6	NP	
Wis.	96d	12½	35k	50	50	1 or ½	40	600	18-C 12-D	32	36C	48C	54C	66C	68C	68C	68C	68C	68C	68C	68C	NP	
Wyo.	96	13½	40	60	60	2	40	NS	18	32	36	50	54	68	73.9	72	73.9	73.9	73.9	73.9	73.9	NP	

NOTE ON "W" AND ASTERISK

Except when shown by asterisk or when followed by the letter "W," the above gross weight limits are the limits fixed by state law. When shown by asterisk the above limits are computations made by the National Highway Users Conference to show what it considers to be practical gross weights where gross weights are arrived at by application of one of the formulae shown below under Footnote "X." In making these computations, wheel base is arrived at by deducting 8 ft. total over-hang front and rear from permissible overall length of unit or combination; tandem axles are considered to be a minimum permissible distance apart. When actual over-hang is less than 8 ft. additional gross weight will be possible. When followed by the letter "W," the limits shown are maximum possible weights where gross weight is determined by permissible axle weight. These limits are possible only when each axle carries a gross weight equal to the permissible axle limit as shown.

*—See Note above.

Table—There is a table of axle weight based upon tire widths.

a—Vehicles over 35-ft length must have 2 axles.

b—Plus weight on front axle.

c—With power brakes.

d—104 in. for urban uses.

e—102-in. buses permitted subject to certain restrictions.

f—40-ft. 2-axle vehicle permitted on designated highways.

g—60 ft on enumerated highways (major interstate routes); 40-ft semi-trailers permitted subject to certain restrictions.

h—Vehicles registered after March 1, 1950.

i—Except on 3-axle single units.

j—47.5 ft drive on both rear axles.

k—Buses permitted 40 ft in Va.; 42 ft in Del.; 45 ft in Okla.; 45.2 in Ga.

m—Auto transporters allowed 13 1/2 ft (also covered vans in Wash.)

n—including tolerance.

o—Graduated according to tire width.

p—Mich.—32,000 lbs on one set of tandem axles in a combination on designated highways; Missa. 32,000 lbs on designated highways; Ohio—31,500 lbs on axles spaced over 4 ft but less than 8 ft apart.

q—50 ft for auto transporters.

r—36-in. tolerance permitted auto transporter semi-trailers.

s—Buses permitted 40 ft on designated highways.

t—10 ft for auto transporters and moving vans.

u—On designated highways.

v—Three-unit combinations with lengths up to 60 ft permitted on State Routes 86 and 242.

A—4 consecutive axles of 5-axle combination may not exceed 80,000 lbs.

C—On "Class A" highways.

D—On "Class B" highways.

E—Axles less than 10 ft apart limited to 16,000 lbs per axle.

H—Maximum shown. In practice, permissible gross weight depends on class.

I—Permissible on balloon tires.

J—Other than balloon tires.

L—2-axle buses permitted 23,625 lbs the maximum net weight; 3-axle bus, 31,500 lbs.

NP—Not permitted.

NR—No restriction.

NS—Not specified.

P—Pneumatic tires.

S—Solid tires.

T—With the following exceptions full trailers are exempted the same gross weight as other single units: Ala., Conn., Iowa, Ky.—Full trailers prohibited. Mass. Trailer and load limited to 3,000 lbs. Tenn.—Trailer and load limited to 3,500 lbs.

V—Solid tires prohibited.

W—See Note above.

X—States where gross weight is determined by formula. (See "Bridge Formulas" on page 226.)

Y—States where gross weight is determined by table of axle spacing. (See "Axle Spacing" Formulas on page 226.)

Z—See "Restrictions Peculiar to Certain States" on page 226.

CHALLENGE ...another large user of **Kem[®] Transport Enamels**



Kem Transport Enamels meet the toughest demands for mixer equipment protection

Challenge Manufacturing Company, one of the major suppliers of truck fleet mixers, approve and recommend KEM Transport Enamels. The reasons are obvious. Rugged use under a wide variety of conditions calls for finishes that fight off heat, cold, moisture, grease and gasoline. KEM Transport Enamels not only answer these problems, but give you added advantages in the paint shop.

Painting time is cut to a minimum. KEM Transport Enamels dry fast, even under extremes of temperature and humidity . . . and without any loss in quality. Every batch is triple checked for your protection.

Call your nearest Sherwin-Williams "OK" Automotive Jobber . . . get the finishes you need to keep your equipment in top condition. Or write The Sherwin-Williams Co., Automotive Division, Cleveland 1, Ohio, or Montreal, Canada.



Approved for Leading National Fleets

Sherwin-Williams KEM Transport Enamels are approved and recommended for the fleet equipment of many national operators, such as Consolidated Freightways, The Coca-Cola Company, Allied Van Lines, City Products Company, National Trailways Bus System and many others.

SHERWIN-WILLIAMS

AUTOMOTIVE FINISHES





New – Different – and Better!

● Why take chances on a "standard" cast iron insert when you can get an Allied Valve Seat Insert that exactly duplicates original equipment—in both design and material.

Most valve seat inserts in the replacement market are made of just one metal—cast iron. All Allied inserts are made of alloys—duplicating *all three* of the commonly used original equipment materials.

Obviously the specifications for an insert have been carefully calculated by the engine manufacturer. An insert metal made to lesser specifications can't give you proper service.

Thus—if your equipment is subjected to average or light duty, the Allied (Series 1) molybdenum alloy inserts are supplied. If

severe operating conditions prevail, Allied (Series 7) chrome molybdenum inserts are available. And the Allied (Series 3) chrome cobalt insert is designed for extremely severe conditions.

See your N·A·P·A Jobber now for full details, or write:

ALLIED AUTOMOTIVE PARTS COMPANY
INDIANAPOLIS 7, INDIANA



State Size and Weight Limits

Continued from page 223

AXLE SPACING
Ala.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 64,650 lbs if spacing is 45 ft or more.
Ariz.— & Calif.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 76,800 lbs if spacing is 56 ft or more.
Del.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 60,000 lbs if spacing is 39 ft or more.
D. C.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 65,400 lbs if spacing is 45 ft or more.
Fla.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 64,650 lbs if 45 ft.
Idaho.—Gross weights graduated from 30,500 lbs if axle spacing is 3 ft to 76,800 lbs if spacing is 56 ft or more; separate table of axle spacing ranging from 37,800 to 79,000 lbs for haulers of wood, aggregates, cattle and farm products plus 5% tolerance on wheel and axle loads.
Iowa.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 65,478 lbs if spacing is 42 ft or more.

Kans.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 63,890 lbs if 44 ft.
Maine.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 60,000 lbs if spacing is 37 ft or more for 3-axle vehicles and to 60,000 lbs if axle spacing is 31 ft or more for 4-axle vehicles.
Mass.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 60,000 lbs if spacing is 35 ft or more.
Miss.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 72,500 lbs if spacing is 43 ft or more.
Miss.—Gross weights graduated from 28,650 lbs if axle spacing is 4 ft to 35,650 lbs if spacing is 34 ft or more; on designated highways from 32,000 lbs if spacing is 4 ft to 59,000 lbs if spacing is 38 ft or more.
Mo.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 64,650 lbs if spacing is 45 ft or more.

Mont.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 78,800 lbs if spacing is 57 ft or more.
Nebr.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 76,800 lbs if spacing is 45 ft or more.
Nev.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 76,800 lbs if spacing is 54 ft or more.
N. H.—Gross weights graduated up to 52,800 for 3-axle combinations and to 66,400 lbs for 4-axle combinations.
N. M.—Gross weights graduated from 34,320 lbs if axle spacing is 4 ft to 66,400 lbs if 56 ft.
Ohio.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 68,000 lbs if spacing is 38 ft or more.
Ore.—Gross weights graduated from 32,000 lbs if axle spacing is 6 ft to 76,000 lbs if spacing is 55 ft or more, provided that no vehicle or combination shall exceed 60,000 lbs except under permit.

S. C.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 65,350 lbs if axle spacing is 50 ft or more.
S. D.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 73,280 lbs if axle spacing is 45 ft or more.
Tenn.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 55,980 lbs if axle spacing is 37 ft or more.
Texas.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 58,420 lbs if 41 ft.
Utah.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 79,900 lbs if spacing is 54 ft or more.
Va.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 55,980 lbs if axle spacing is 35 ft or more.
Wash.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 72,000 lbs if axle spacing is 57 ft or more.
W. Va.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 73,280 lbs if 57 ft.
Wisc.—Gross weights graduated from 32,000 lbs. for spacing of 4 ft to 68,000 lbs for 43 ft or more on Class A highways (including all tolerances).
Wyo.—Gross weights graduated from 32,000 lbs if axle spacing is 4 ft to 73,950 lbs if 57 ft.

BRIDGE FORMULAE
Calo.—800 (L plus 40).
Id.—850 (L plus 40) any unit or combination, provided that gross weight of any vehicle or combination shall not exceed 65,000 lbs.
N. D.—750 (L plus 40) any unit or combination.
Ohio.—800 (L plus 47½).

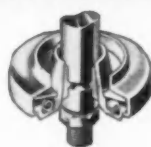
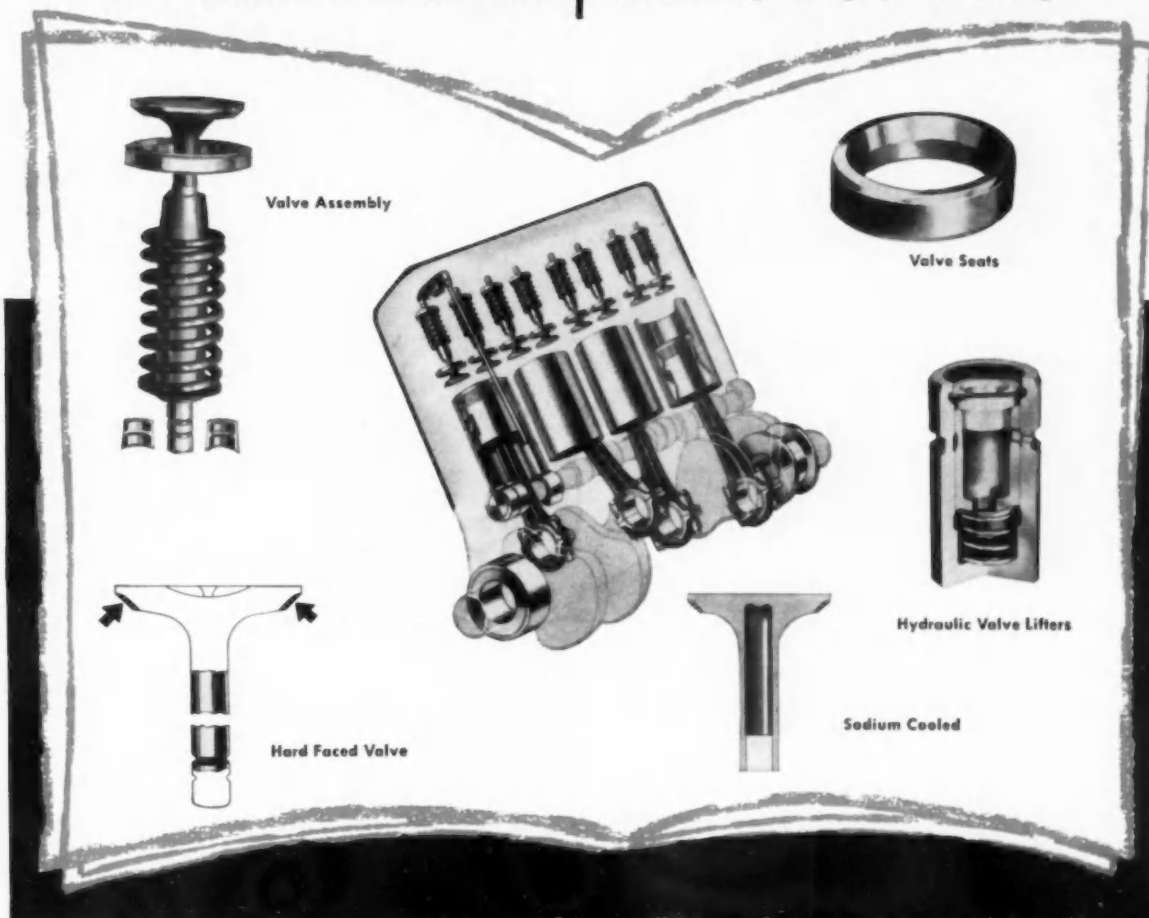
RESTRICTIONS PECULIAR TO CERTAIN STATES
Ill.—Limits shown are permissible on designated highway; otherwise limited to 16,000 lbs. on any one axle. Two axle truck limited to 32,000 lbs.
Ky.—Limits shown are permissible on designated highways; otherwise limits are: height 11½ ft.; length—truck 26½ ft.; length—semi-trailer combination 30 ft.; gross weight 18,000 lbs.
Miss.—Gross weight limits shown are permissible on designated highway; on other highways, graduated from 28,650 lbs. if axle spacing is 4 ft. to 55,650 lbs. if spacing is 38 ft. or more.
N. C.—Gross weight limit on most secondary highways 16,000 lbs. for two axles and 24,000 lbs. for 3 axles.

U. S. GOVERNMENT FLEET OPERATING FACTS

As reported by the General Services Administration for the year ending June 30, 1958

		TRUCK—GROSS VEHICLE WEIGHT						
		Automobiles	Station Wagons	Ambulances	Buses	Less than 12,500 (1 Ton & Under)	12,500 to 16,999 (1½-2½ Tons)	17,000 and Over (3 Tons & Over)
								Fleet Average
Number of Vehicles	Civilian Agencies	21,041	2,088	320	1,068	67,766	9,968	4,845
	Dept. of Defense	18,785	3,656	1,762	6,237	44,929	23,218	10,156
	All Vehicles	39,826	5,742	2,082	7,305	112,695	33,186	15,001
Avg. Miles per Gallon of Fuel	Civilian Agencies	14.74	13.67	9.14	5.72	9.53	6.07	4.44
	Dept. of Defense	13.67	11.46	8.65	5.40	10.52	6.50	4.29
	All Vehicles	14.20	12.03	8.72	5.46	9.60	6.32	4.36
Avg. Miles Per Vehicle	Civilian Agencies	12,620	12,482	4,075	11,135	9,382	6,288	9,970
	Dept. of Defense	12,648	16,377	5,049	8,259	8,819	4,216	8,253
	All Vehicles	12,634	15,084	4,879	8,675	9,148	4,833	8,995
Total Cost per Mile	Civilian Agencies	\$.06320	\$.07027	\$.24520	\$.22778	\$.10545	\$.17924	\$.10642
	Dept. of Defense	.07193	.08344	.23859	.35640	.09647	.21194	.13228
	All Vehicles	.06740	.07982	.23784	.33249	.10186	.19927	.11870
Direct Operating Cost per Mile	Civilian Agencies	\$.02683	\$.02739	\$.05315	\$.05811	\$.05140	\$.04583	\$.05791
	Dept. of Defense	.02270	.02692	.04013	.06320	.02836	.05095	.07634
	All Vehicles	.02469	.02705	.04203	.06226	.03084	.04897	.06786
Maintenance and Repair Cost per Mile	Civilian Agencies	\$.01116	\$.01260	\$.05241	\$.05222	\$.02747	\$.04555	\$.06059
	Dept. of Defense	.01969	.01832	.07577	.10486	.02512	.05330	.08849
	All Vehicles	.01526	.01678	.07237	.09507	.02654	.05030	.08485
Depreciation Cost per Mile	Civilian Agencies	\$.01465	\$.01982	\$.06869	\$.08298	\$.01976	\$.03903	\$.05008
	Dept. of Defense	.01193	.01530	.04554	.11083	.01362	.05313	.09333
	All Vehicles	.01334	.01855	.04692	.10565	.01732	.04767	.07342
Overhead and Indirect Cost per Mile	Civilian Agencies	\$.00653	\$.00909	\$.06943	\$.02629	\$.02458	\$.04700	\$.05323
	Dept. of Defense	.01760	.02286	.07514	.07751	.02936	.05455	.08968
	All Vehicles	.01179	.01906	.07430	.06799	.02650	.05162	.07339
Other Costs per Mile	Civilian Agencies	\$.00441	\$.00136	\$.00159	\$.00817	\$.00186	\$.00181	\$.00197
	Dept. of Defense							
	All Vehicles							
Accident Damage Cost per Mile	Civilian Agencies	\$.00049	\$.00079	\$.00110	\$.00061	\$.00062	\$.00058	\$.00134
	Dept. of Defense							
	All Vehicles							
Number of Vehicles Disposed of	Civilian Agencies:							
	Sold, Donated, Salvaged or							
	Abandoned	4,738	238	48	146	7,664	2,496	423
	Transferred to Other Agencies	757	80	33	25	1,491	286	123

Thompson Products wrote the book on valves and complete valve service



Rotocap
(positive type)



Rotavalve
(release type)



Rotocoil
(positive type)

Sold thru the world's finest jobbers

It's a well-known fact among automotive engineers and repairmen that Thompson Products pioneered and developed just about every major valve improvement made during the past 50 odd years. Thompson literally wrote the book on valves and valve service.

When you specify and install Thompson Products valves and component parts, you get the best there is — "original equipment precision parts" from the world's leading valve manufacturers.



Thompson Products

Replacement Division

Thompson Ramo Wooldridge Inc.
Cleveland 9, Ohio

STATE LAWS MAY DIFFER

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certain:

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is the recognized
standard
for compliance
as well as
quality!
performance!
value!

Class A—Type 1 Directional Signals ■ Switches ■
Flashers ■ Stop & Tail Lamps ■ Clearance, Marker,
Identification, Emergency Warning & Utility Lamps.

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Brooklyn 11, N. Y.

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Class A—Type 1 Directional Signals ■ Switches
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Brooklyn 11, N. Y.

SAFETY EQUIPMENT



. . . Required and permitted on trucks, truck-tractors, trailers and buses as specified in ICC safety rules and regulations, state motor vehicle laws and official rulings . . . Compiled by National Highway Users Conference

FOR DETAILS OF SAFETY REQUIREMENTS, SEE PAGES 232 & 233

EXPLANATION OF ICC REFERENCES

‡—The I.C.C. Motor Carrier Safety Regulations apply to "Automotive Safety Equipment" on vehicles operated by common and contract carriers ("for hire" carriers) of persons or property and by private carriers of property, when operated regularly in interstate or foreign commerce except when operated wholly within a municipality, between contiguous municipalities, or within a zone adjacent to and commercially a part of any such municipality or municipalities. When vehicles of common, contract or private carriers are transporting explosives or other dangerous articles the last-mentioned exception does not apply.

†—Requires "a device or other means of preventing or removing ice or frost" from windshield.

*—I.C.C. neither approves nor disapproves any individual required item. Its Motor Carrier Safety Regulations, however, set forth certain constructional details of performance standards to which certain items must conform. Reference should be made to the Motor Carrier Safety Rules for complete details.

COLOR AND REQUIREMENT SYMBOLS

A—Amber
G—Green
R—Red
Ye—Yellow
W—White

NP—Not Permitted
NR—Not Required
NS—Not Specified
NSM—Not Specifically Mentioned

N—No
Y—Yes
/—when used between two letters or numbers means "or,"
Example—2/4 means "2 or 4."

GENERAL FOOTNOTES

a—Prohibits red light visible from in front of vehicle.
b—Prohibits red or green light visible from in front of vehicle.
c—Tail lamp or separate lamp shall illuminate rear license plate with white light.
d—Must be located and constructed so as to illuminate rear license plate with white light.
e—May be incorporated in tail lamp.
f—Semaphores required on school buses.
g—One or both may be incorporated in tail lamp or lamps.
h—Number plate must be illuminated with white light.
i—Reciprocity on commercial vehicle lighting equipment exists between New York and a majority of the states.
j—Also two yellow or amber reflectors on front of vehicle.
k—One may be part of tail lamp.
l—Permitted on commercial vehicles over 80 in. wide.
m—Reflectors may be substituted.
n—Reflectors may be used when vehicle has acetylene lamps.
o—Two required on new vehicles first registered after Jan. 1, 1958.
p—White, green or amber. Where green originally used, may be continued till replacements are necessary.
q—Signal lamps are specified. In Wisconsin, new vehicles after Jan. 1, 1958.
r—Yellow or orange flags required.
s—On vehicles over 45 feet long, rear clearance and marker lamps shall be in combination.
t—One green marker lamp every 10 feet on combinations over 33 feet long.

u—New vehicles shall have double wipers.
v—2 on new vehicles other than truck tractors. No exception for truck tractors in Pennsylvania.
w—New vehicles.
x—Or rear clearance lights required by I.C.C.
y—Trailer and semi-trailer shall have one lamp on front visible from both sides.
z—Clearance and marker lamps may be in combination.
aa—Every vehicle 72 in. or more wide must have 2 amber or clear front, and 2 amber, clear or red rear reflectors. Clearance lamps may be substituted. Reflectors must be approved. Clearance lamps need not be approved.
bb—Plus two auxiliary passing lamps.
cc—On explosive carriers.
dd—On interstate buses—green lights adjacent to destination sign or rear upper corners;
On intrastate buses—purple lights in same locations.
ee—Double wipers required on all school buses.
ff—Two yellow stop lamps required on all buses.
gg—If originally equipped with two, both must be operative.
hh—Two reflectors also required on front—reflectorized material extending breadth of vehicle may be substituted.
ii—Clearance and marker lamps may be in combination. When in combination there must be one such lamp on each side, midway of vehicle.
kk—Permits tinted other than red.
xx—Fog lamps are included within the term "Auxiliary Driving Lamps" and are treated accordingly.
zz—Plus 1 auxiliary passing lamp.

Data Revised to March 10, 1959

ALL NEW!



Double Face Single Face Flush Mount

Lamps available in Yankee blue-white chrome or black, baked-enamel finish.

NEW—Dynamic, Virgin Lucite Molded Lens. Widest angle projection on the market. More than three times candlepower required.

NEW—Extra Safety Protection with 1" reflector on Single Face and Flush-Mount lamps.

NEW—Unique Brass Socket permits uses of Single or Double Contact, indexed or non-indexed bulbs.

NEW—Heavy-Duty Flasher. Flashes 2-6 lamps simultaneously without change in rate of flash.

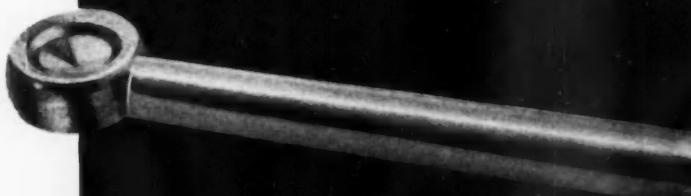
NEW—Construction: Heavy Wall, Non-Corrosive, Die-Cast.



NEW—"TURNFLEX" Signal Switch. No. 736 (7-wire) combination Turn-signal, Stop, Tail and Emergency-warning Switch when used with Double Contact rear signal lamps. Also available as replacement switch No. 730 (4-wire) which converts 4 lamps on vehicle to Turn and Emergency-warning signals when used with Heavy-Duty Flasher. 6- or 12-volt operation. Red disability pull-lever operates in neutral position and automatically shuts off when signal lever is activated. Universal stainless steel clamp with one-screw adjustment...no loose parts. Heavy-duty, die-cast construction. Non-corrosive. Finished in copper, nickel and Yankee Blue-White Chrome-Plate. For further information on "TURNFLEX" Switch or any Yankee safety device, see your distributor or write to:

YANKEE METAL PRODUCTS CORPORATION
Norwalk, Connecticut

STILL AFTER CYCLE



YANKEE

WORKING 1,000,000 TEST!



Although S.A.E. durability specifications call for only 175,000 cycles, this Yankee "TURNFLEX" Signal Switch has successfully withstood the amazing stress of 1,000,000 cycles of operation and still works perfectly! We'll be glad to show you the test results.

TO BE MOUNTED ON VEHICLES

Jurisdictional Control Over Equipment	HEAD LAMPS			TAIL LAMPS			STOP LAMPS			REAR REFLECTORS			CLEARANCE LAMPS			SIDEMARKER LAMPS			IDENTIFICATION LAMPS			DIRECTION SIGNALS			SIDE REFLECTORS									
	Number	Color	Must Be Approved	Number	Color	Must Be Approved	Number	Color	Must Be Approved	Number	Color		Number	Color	Must Be Approved	Number	Color		Number (Sets)	Color		Must Be Approved	Number	Color		Must Be Approved	Number	Color		Must Be Approved	Number	Color		Must Be Approved
											Front	Rear					Front	Rear		Front	Rear			Front	Rear			Front	Rear			Front	Rear	
I.C.C.	2	NS	•	2	R	•	2/1	R/ye	•	2	R	•	2/4z	A	R	•	4z	A	R	•	NR			NR				2/4	A	R	•			
Ala.	2	W/A	Y	1d	R	Y	1	R/ye	Y	2	R	N	4	W	R	N	NR							NS	NS	R	Y	2	NS	R	N			
Alaska	2	a	•	2	R	•	2	R/A	•	2	R	•	2/4	A	R	•	4	A	R	•	NR			4	W/A	A/R	2/4	A	R					
Ariz.	2	W/A	Y	1c	R	Y	1	R/ye	Y	2	R	Y	4	A	R	Y	4	A	R	Y	NR			4	A	R	Y	2	A	R	Y			
Ark.	2	NSb	Y	1e	R	Y	1	R/ye	Y	1e	R	Y	2	Q	R	Y	4m	G	R	Y	3	Q	R	Y	4q	Ye	Ye/R	Y	4	G	R	Y		
Calif.	2	W/A	Y	2c	R	Y	1eo	A/R	Y	1/2k	R	Y	4	A	A/R	Y	NR				NR			4	A/W	A/R	Y	NR						
Colo.	2	W/A	Y	1co	R	Y	1eo	R	Y	2o	R	Y	4	A	R	Y	4	A	R	Y	NR	A	R	4q	W/A	R/A	Y	4	A	R	Y			
Conn.	2	W/A/Ye	Y	1c	R	Y	1f	R/R	Y	1/2k	A/RW	Y	4aa	A/W	A/RW	Y	NR			2	dd	NR	N	4	Ye/A	Ye/A/Bw	Y	4	A/W	W/RA	Y			
Del.	2	NSa	N	1cv	R	N	1	R/A	N	2wo	R	N	2/4z	A	R	N	4z	A	R	N	NR			NS	W/A	R/A	N	4	A	R	N			
D. of C.	2	NSa	Y	1cv	R	Y	1e	R/ye	Y	2	R	Y	2/4z	A	R	Y	4z	A	R	Y	NR			4	W/A	R/A	Y	4	A	R	Y			
Fla.	2	NSa	N	1c	R	N	1e	R/ye	Y	2	R	N	2/4z	A	R	N	4z	A	R	N	NR			NS		R/Ye	Y	4	A	R	N			
Ga.	2	NS	N	1c	R	N	1	A/R	N	2e	R	Y	2/4z	A	R	Y	4z	A	R	Y	NR			NS	NS	R	4	A	R	N				
Idaho	2	NSa	Y	1cv	R	Y	1e	A/R	Y	2g	R	Y	2/4z	A	R	Y	2/4z	A	R	Y	NR	A	R	NS	W/A	R/A	Y	4	A	R	Y			
Ill.	2	Ye/AW	Y	1	R	Y	1	Ye/R	Y	2j	R	Y	2n	Ye/A		Y	NS	NS	NS	N	3xn		R	NS	W/A	R/A	Y	4	A	A/R	Y			
Ind.	2	NSa	N	1cv	R	N	1f	R/A	N	2	R	N	2/4z	A	R	N	4z	A	R	N	NR			NSf	W/A	R/A	N	4	A	R	N			
Iowa	2	Wkk	Y	1c	R	Y	1	Ye/R	Y	2k	R	Y	2/4	Ye/W/A	R	Y	4	Ye/AW	R	Y	3	Ye/AW	R	Y	4	W/L/te	R/L/te	Y	2/4	p	R	Y		
Kan.	2	W	Y	1c	R	Y	1	Ye/R	Y	1e	R	Y	2	A	R	Y	4m	A	R	Y	3	A	R	Y	NR	Ye	Ye/R	Y	4	A	R	N		
Ky.	2	Wkk	N	1n	R	N	1	Ye/R	N	1e			2	G/W	R	N	NR				NR			NS	NS	Ye/R	N	NR						
La.	2	NSb	Y	1d	R	Y	1	R	Y	NR			2	A	R	Y	4	A	NS	Y	NR			4	A	R	Y	NR						
Me.	2	W	Y	1c	R	Y	1	R/A	Y	1e	R	Y	2/3m	A/GW	R	Y	NR				NR			NS			Y	NR						
Md.	2	Wkk	Y	1c	R	Y	1	A/R	Y	1e	R	Y	4m	A	R	Y	4mz	A	R	Y	NR			4	A	A/R	Y	NR						
Mass.	2	Ye/AW	Y	1	R	Y	NR			1	R	N	2	G	R	Y	NR				NR			NR			NR							
Mich.	2	W	N	1c	R	N	1	A/R	N	2	R	N	2/4z	A	R	N	4z	A	R	N	NR			4	NS	R/A	N	2/4	A	R	N			
Minn.	2	W	Y	1c	R	Y	1	Ye/R	Y	1e	R	Y	4ll	A/W	R	Y	4ll	A/W	R	Y	NR			4	Ye	Ye/R	Y	NR						
Miss.	2	W	Y	1c	R	Y	1	A/R	Y	2	R	Y	4	A	R	Y	4	A	R	Y	NR			4	A	A/R	Y	4	G	R	Y			
Mo.	2	W	Y	1c	R	Y	1	NS	Y	2/4	R	Y	2/4	A	R	Y	2/4	A	R	N	NR			NS	NS	R	Y	2	A	R	N			
Mont.	2	W	N	1cv	R	N	1	R/A	N	2e	R	N	2/4z	A	R	N	4z	A	R	N	NR			4q	W/A	R/A	N	4	A	R	N			
Nebr.	2	NSb	Y	1	R	Y	1	R	Y	1	R	N	2m	A/G	R	Y	NR				NR			NS	NS	R	Y	NR						
Nev.	2	Wkk	N	1	R	N	1ef	Ye/RA	Y	2	R	N	2/4	A	R	N	2/4	A	R	N	NR			NR				2	A	R	N			
N. H.	2	NSa	Y	1d	R	Y	1	NS	Y	2	R	Y	4e	A	R	Y	2e	A	R	Y	NR			NS	NS	NS	Y	4	A	R	Y			
N. J.	2	Ye/AW	Y	2c	R	Y	2	R	Y	1/2k	R	Y	NR				NR				NR			4	Ye/A	Ye/A	Y	NR						
N. M.	2	NSa	Y	2e	R	Y	1e	Ye/R/A	Y	2	R	Y	2/4z	A	R	Y	4z	A	R	Y	NR			4	A	R/A/Ye	Y	4	A	R	Y			
N. Y.	2	Ye/W	Y	2h	R	Y	2	R	Y	2	R	Y	4z	A	R	Y	4/6z	A	R	Y	3	A	R	Y	4	W/A	R	Y	4/6	A	R	Y		
N. C.	2	NSb	Y	1d	R	Y	1	A/R	Y	2	R	Y	2/4	A	R	Y	4	A	R	Y	NR			4	NS	R/A/Ye	Y	4	A	R	Y			
N. D.	2	NSb	Y	1	R	Y	1	R	Y	NR			2	A	R	Y	NR				NR			NS	NS	R	Y	NR						
Ohio	2	W	Y	1c	R	N	1	Ye/R	Y	2	R	N	4	A	R	N	4	A	R	N	NR			NS			Y	4	A	R	N			
Okla.	2	W	Y	1cv	R	Y	1e	R/AYe	Y	2e	R	Y	4	A	R	Y	4	A	R	Y	NR			NS	Ye/A	A/R/Ye	Y	4	A	R	Y			
Ore.	2	NSb	Y	1c	R	Y	1	Ye/R	Y	2k	R	Y	2/4z	A	R	Y	2/4z	A	R	Y	NR			2/4	A	R	Y	2/4	A	R	Y			
Penna.	2	NSa	Y	1cv	R	Y	1v	Ye/R	Y	2	R	Y	2m	A	R	N	4m	A	R	N	3	A	R	N	2/4	Ye/A	Ye/R	Y	4	A	R	Y		
R. I.	2	A/W	Y	1c	R	Y	1	Ye/R	Y	2	R	Y	2/4z	A	R	Y	4z	A	R	Y	NR			4	Ye/A	Ye/A	Y	4	A	R	Y			
S. C.	2	W	N	1c	R	N	1	Ye/R	Y	1e	R	N	2/4z	A	R	N	4z	A	R	N	NR	A	R	4	A	Ye/R	Y	2/4	A	R	Y			
S. D.	2	NSa	Y	1c	R	Y	1	Ye/R	Y	1e	R	Y	4	A	R	Y	NR			3	A	R	Y	4	A	Ye/R	Y	NR						
Tenn.	2	NSa	Y	1	R	Y	1	A/R	Y	2	R	N	4	A	R	Y	4	A	R	Y	NR			NS	NS	NS	Y	4	A	R	Y			
Tex.	2	W	Y	1d	R	Y	1	Ye/R	Y	2	R	Y	2/4z	A	R	Y	4z	A	R	Y	NR			4	A	R/A/Ye	Y	2/4	A	R	Y			
Utah	2	NSa	Y	1cv	R	Y	1e	R/A	Y	2g	R	Y	2/4z	A	R	N	4z	A	R	N	NR			4q	W/A	R/A	Y	4	A	R	Y			
Vt.	2	W/A	Y	1d	R	Y	NR		NR			1	G	R	Y	NR				NR			NR				NR							
Va.	2	W	Y	1c	R	Y	1	R	Y	NR			4	A	R	Y	NR				NR			4	A	A/R	Y	NR						
Wash.	2	NSa	Y	2c	R	Y	1e	R/A	Y	2e	R	Y	2/4z	A	R	Y	4z	A	R	Y	NR			4	W/A	R/A	Y	4	A	R	Y			
W. Va.	2	NSa	Y	1c	R	Y	1e	R/Ye	Y	2g	R	Y	4z	A	R	Y	2/4z	A	R	N	NR			NS		R/A/Ye	Y	4	A	R	Y			
Wisc.	2	W	N	1cgg	A/R	N	1egg	A/R	N	2ehh	R	N	4	A	R	N	NR	A	R	N	NR				4q	W/A	R/A	N	4	A	R	N		
Wys.	2	NSa	Y	1cv	R	Y	1	R/A	Y	2e	R	Y	2/4z	A	R	Y	4z	A	R	Y	NR			NS	W/A	R/A	Y	4	A	R	Y			

REQUIRED

PERMITTED

TO BE CARRIED IN VEHICLES																								TO BE MOUNTED									
REAR VIEW MIRROR		WINDSHIELD WIPERS		DEFROSTERS		FIRE EXTINGUISHERS		LIQUID BURNING FLARES		ELECTRIC FLARES		REFLECTOR FLARES		FUSEES		RED CLOTH FLAGS		LIGHT OR FLAG ON PROJECTING LOAD		AUXILIARY DRIVING LAMPS			FOG LAMPS			SPOT LAMPS			Driving Lights Permitted Lit At One Time		Jurisdictional Control Over Equipment		
Number	Must Be Approved	Number	Must Be Approved	Number	Must Be Approved	Number	Must Be Approved	Number	Must Be Approved	Number	Color	Number	Color	Number	Color	Number	Color	Number	Size (Square)	Light or Lantern	Flag Size (Sq.)	Number	Color	Must Be Approved	Number	Color	Must Be Approved	Number	Color	Must Be Approved	Number	Color	Must Be Approved
2	*	2	*	1	*	1/2	*	3	*	3	R	3	R	3	NS	15	2	12	1	12	NSM		NSM		NSM		4	I.C.C.					
1	N	1	N	NR	NR	3	Y	3	Y	3	R	Y	3	R	Y	3	NS	2	12	1	12	2	NS	Y	2	NS	Y	NS	Ala.				
1	...	1	...	NR	2cc	3	Y	3	Y	3	R	Y	3	R	Y	3	NS	2	12	1	12	2	A/W	Y	2	A/W	Y	2	NSa	Y	NS	Alaska	
1	N	1	N	NR	NR	1	Y	3	Y	3	R	Y	3	R	Y	3	NS	2	12	1	12	2	bb	NSa	Y	2	NS	Y	1	NSa	Y	4	Ariz.
1	N	1	N	NR	NR	3	Y	3	Y	3	R	Y	NS	M	...	NR	...	NR	...	1	16	3	NSa	Y	XX	...	1	NSa	Y	4	Ark.		
1	N	1u	N	1†	N	1	Y	2	N	2	R	N	2	R	Y	NR	...	NR	...	2	16	2bb	A/W	Y	2	A/W	Y	2	NS	Y	4	Calif.	
1	N	1	N	1†	N	1	...	3	Y	3	R	Y	3	R	Y	3	NS	NR	...	1	NS	2	A/W	N	XX	...	1	A/W	N	4	Conn.		
1	N	1	N	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	...	1	12	1zz	NSa	N	2	NSa	N	2	NSa	N	4	Del.	
3/4	N	2	N	NR	NR	1	N	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	...	1	12	1zz	A/W	Y	2	A/W	Y	2	A/W	N	4	D. of C.	
1	N	1	N	1†	N	1	Y	3	Y	3	R	Y	3	R	3	R	15	2	12	1	16	3	NSa	N	NSM	...	1	NSa	N	NS	Fla.		
1	N	1	N	1†	N	1	Y	3	N	3	R	N	3	R	N	3	R	15	2	12	1	12	2	NS	N	2	NS	N	1	NSa	N	NS	Ga.
1	N	2	N	1†	N	1	Y	3	Y	3	R	Y	3	R	Y	3	NS	2	12	1	16	2bb	NSa	Y	2	NSa	Y	2	NSa	Y	4	Idaho	
1	N	1	N	NR	NR	2	N	3	Y	3	R	Y	3	R	Y	NR	...	3	NS	1	16	3	NS	N	XX	...	1	NS	N	4	Ill.		
1	N	1	N	NR	NR	3	Y	3	Y	3	R	Y	3	R	Y	3	R	15	2	12	1	12	1zz	NS	N	2	NS	N	2	NSa	N	4	Ind.
1	N	1	N	NR	NR	2	Y	3	Y	3	R	Y	3	R	Y	1	NS	NS	3	NS	1	16	3	NSa	Y	XX	...	1	NSa	Y	4	Iowa	
1	Y	1	N	1†	N	2	N	3	Y	3	R	Y	3	R	Y	3	R	15	3	15	2	12	3	A/W	Y	XX	...	1	W	N	4	Kan.	
1	N	1	N	NR	NR	1	Y	3	Y	3	R	Y	3	R	Y	3	R	15	NR	...	1	NS	NSM		NSM		NSM		NS	NS	Ky.		
1	N	1	NR	NR	1	N	3	Y	3	R	Y	3	R	Y	NR	...	2	12	1	12	2	NSa	Y	XX	...		Prohibited	NS	La.				
1	N	1	N	1†	N	1	Y	3	N	3	R	N	3	R	N	NR	...	2	12	1	NS	2	A/W	Y	XX	...	1	NS	N	NS	Me.		
1	N	1	N	NR	NR	2	Y	3	Y	3	R	Y	3	R	Y	NR	...	NR	...	1	16	3	NSa	Y	XX	...	1	NSa	N	4	Md.		
1	N	1	N	NR	NR	1	Y	3	Y	3	R	Y	3	R	Y	NR	...	NR	...	1	12	NSM		NSM		1	NSa	Y	NS	Mass.			
1	N	1u	N	1	N	1	N	3	Y	3	R	Y	3	R	Y	3	R	15	2	12	1	12	2	A/W	N	XX	...	2	A/W	N	NS	Mich.	
1	N	1	N	1†	N	1	Y	3	Y	3	R	Y	3	R	Y	NR	...	3r	24	1	12	4	A/W	Y	XX	...	2	W	Y	4	Minn.		
1	N	1	N	1†	N	1	Y	3	Y	3	R	Y	3	R	Y	3	R	15	NR	...	1	16	2	NS	Y	XX	...	1	NS	N	4	Miss.	
1	N	1	N	1†	N	1	Y	3	Y	3	R	Y	3	R	Y	3	R	15	2	NS	1	16	3	Ye/AW	N	XX	...	1	Ye/AW	N	4	Mo.	
1	N	1	N	1†	N	1	Y	3	N	3	R	N	3	R	N	3	R	15	2	12	1	12	2bb	NSa	N	2	NSa	N	2	NS	N	4	Mont.
1	N	1	N	NR	NR	1	N	3	Y	NR	...	3	R	Y	NR	...	2	NS	1	16	2	NSb	Y	NSM	...	1	NSb	Y	NS	Nebr.			
1	N	1	N	1†	N	1	Y	3	Y	3	R	Y	NSM	...	3	R	15	2	12	1	12	3	NS	N	XX	...	1	NS	N	4	Nev.		
1	N	1	N	1	N	1	Y	2	Y	2	R	Y	2	R	Y	2	R	20	NR	...	1	12	3	NS	Y	2	A	Y	2	NS	Y	4	N. H.
1	N	1	N	NR	NR	1	Y	3	Y	3	R	Y	3	R	Y	NR	...	NR	...	1	12	2	A/W	Y	XX	...	1	NSa	Y	4	N. J.		
1	N	1	N	1†	N	1	Y	3	Y	3	R	Y	3	R	Y	3	R	15	2	12	1	12	2	NSa	Y	2	NSa	Y	2	NSa	Y	4	N. M.
1	N	1	N	1†	N	1	Y	2	Y	2	R	Y	2	R	Y	NR	...	NR	...	1	24	NSM		NSM		NSM		NS	N. Y.				
1	N	1	Y	NR	NR	2	Y	2	N	2	R	N	NP	...	2	R	NS	2	12	1	12	2	NS	N	XX	...	2	NS	Y	NS	N. C.		
1	N	1	N	NR	NR	1	N	3	Y	3	R	Y	3	R	Y	3	R	15	2	12	1	12	1	NS	Y	2	NS	Y	2	NS	Y	NS	N. D.
1	N	1	N	NR	NR	2	Y	3	Y	3	R	Y	NP	...	3	R	15	2	12	1	16	3	W	N	NS	Ye/AW	N	1	W	N	8	Ohio	
1	N	1	N	1†	N	1	Y	3	Y	3	R	Y	3	R	Y	3	R	15	3	12	1	12	2	NSa	Y	XX	...	2	NSa	Y	4	Okl.	
1	N	1	N	NR	NR	1	Y	3	N	3	R	N	3	R	Y	NR	...	3	12	1	12	3	NSa	Y	XX	...	1	NS	Y	4	Ore.		
1	N	1	N	NR	NR	1	N	3	Y	3	R	Y	3	R	Y	NR	...	3	12	1	12	3	W	Y	2	A/W	Y	1	NS	N	4	Penna.	
1	N	1cc	N	1†	N	1	Y	3	Y	3	R	Y	3	R	Y	3	R	15	2	12	1	12	2	A/W	Y	XX	...	2	NS	Y	4	R. I.	
1	N	1	N	1†	N	2	Y	3	Y	3	R	Y	3	R	Y	3	R	15	3	12	1	12	2	NS	Y	2	NS	Y	1	NS	N	4	S. C.
1	N	NR	NR	NR	NR	1	N	3	Y	3	R	Y	3	R	Y	NR	...	NR	...	1	12	3	NS	Y	XX	...	1	NS	N	NS	S. D.		
1	N	1	N	1†	N	1	Y	3	Y	3	R	Y	3	R	Y	3	R	15	2	12	1	12	2	NS	N	XX	...	2	NSa	N	4	Tenn.	
1	N	NR	NR	NR	NR	1†	N	2	Y	3	Y	3	R	Y	3	R	15	2	12	1	12	3	NS	Y	XX	...	1	NS	Y	4	Tex.		
1	N	1	N	1†	N	1	Y	3	Y	3	R	Y	3	R	Y	3	R	15	2	12	1	12	NSM		2	NSa	Y	2	NSa	N	4	Utah	
1	N	1	N	NR	NR	1	Y	3	Y	3	R	Y	3	R	Y	NR	...	2	12	1	12	2	NS	Y	2	NS	Y	2	NS	Y	NS	VT.	
1	Y	1u	Y	NR	NR	1	Y	3	Y	3	R	Y	3	R	Y	NR	...	2	12	1	12	2	NS	Y	2	A/W	Y	2	W	Y	4	Va.	
1	N	2	N	NR	NR	1	Y	3	Y	3	R	Y	3	R	Y	3	R	15	2	12	1	12	1zz	NSa	Y	2	NSa	Y	2	NSa	Y	4	Wash.
1	N	1	N	1†	N	1	Y	3	Y	3	R	Y	3	R	Y	3	R	15	2	12	1	12	2	NSa	Y	2	NSa	Y	1	NS	Y	4	W. Va.
1	N	1	N	NR	NR	1	Y	3	Y	3	R	Y	NP	...	3	R	NS	2	12	1	12	NS	W/A	N	2	W/A	N	2	W/A	N	4	Wis.	
1	N	1	N	1†	N	1	Y	3	Y	3	R	Y	3	R	Y	3	R	15	2	12	1	12	1zz	NSa	Y	2	NSa	Y	2	NSa	Y	4	Wys.

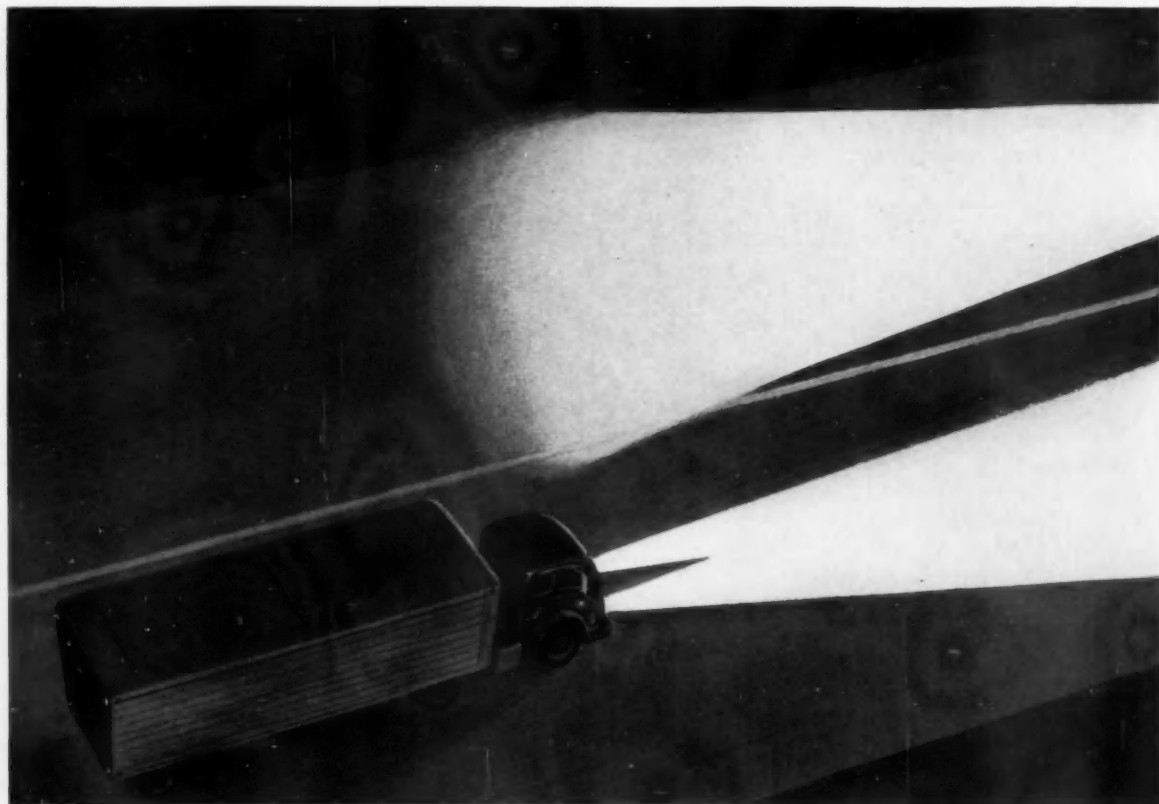
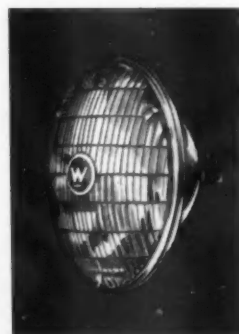
New Westinghouse Town and Highway

ALMOST DOUBLES

Modernize your trucks with these new headlamps and help:

1. *cut down over-the-road accidents*
2. *reduce eyestrain and driver fatigue*
3. *keep down insurance rates!*

**WESTINGHOUSE TOWN AND HIGHWAY HEADLAMPS
ARE AVAILABLE NOW . . . FOR SAFETY'S SAKE
START INSTALLING THEM IN YOUR FLEET NOW!**



SAFE-T-BEAM™ HEADLAMP

NIGHTTIME VISIBILITY!

55% OF ALL ROAD FATALITIES OCCUR AT NIGHT!*

But, here's a low-cost way to keep your fleet accident rate down—and your profits up! It's the new Westinghouse Town and Highway Safe-T-Beam headlamp, the biggest boon to nighttime driving in years!

50% MORE LIGHT! This major improvement in design projects the beam *an extra 100 feet down the road* on the Town (low) beam, giving drivers a vital 100 foot extra safety-margin! At the same time, an improved light pattern on the right side of the road lets the driver see beyond oncoming traffic—whether approaching drivers dim their lights or not. Once safely past, the "searchlight" effect of these new lamps helps the drivers' eyes adjust more quickly to the

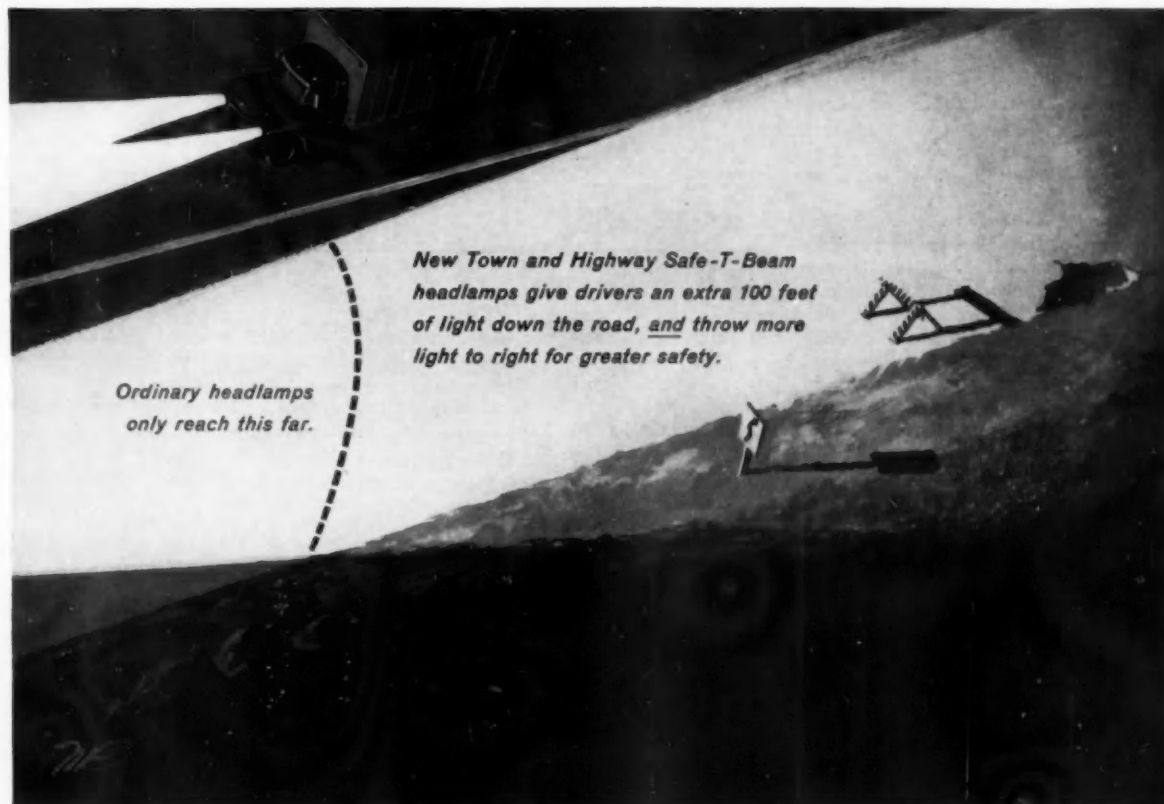
suddenly reduced light level. What's more, there's no increased drain on the battery.

EXCLUSIVE TWO-BEAM GLARE SHIELD! Unlike other headlamps, the Westinghouse Town and Highway Safe-T-Beam headlamp has *both* filaments shielded. That means drivers can use the high beam in rain, fog, dust or snow without dangerous glare bounce-back.

EASY TO AIM—EASY TO INSTALL! The new Westinghouse headlamps (6006—6-volt; 6012—12-volt and 6013—12-volt Heavy Duty) are interchangeable with *all* present type 7-inch lamps. Aimer buttons are molded into the new lens for quick, precise aiming with inexpensive mechanical aimers now on the market.

*National Safety Council "Accident Facts, 1957"

YOU CAN BE SURE...IF IT'S **Westinghouse**





CHECK YOUR REGS

VEHICLE INSPECTION LAWS

THE chart below spells out highlights of the basic provisions in states and cities requiring vehicle inspection. It is presented primarily for the benefit of fleet operators who have or who contemplate having vehicles registered in "foreign states

or cities." After noting the basic provisions, refer to the notes below.

Although subject to local variation, the American Assn. of Motor Vehicle Administrators and the Assn. of Casualty and Surety Companies are sponsors of a generally accepted

standard for vehicle inspection. If you'd like a copy, write American Standards Assn., 70 East 45th St., New York 17, N. Y. Ask for "American Standard Inspection Requirements for Motor Vehicles, D7.1-1956." The price is \$1 per copy.

Reference Notes

Note 1. Semi-annually—Apr.-May and Oct.-Nov. Fee is not more than \$1.50.

Note 2. Annually, during three months prior to expiration of registration.

Note 3. In Illinois all trucks must be inspected and secure a "certificate of safety" prior to registration and semi-annually thereafter.

Note 4. Trucks and buses, except those subject to ICC safety requirements and buses subject to Illinois Commerce Commission safety and inspection requirements.

Note 5. Brakes, lights, horns, reflectors, mufflers, rear vision mirrors, safety chains, frame, axles, cab, body, wheels, steering apparatus, safety devices.

Note 6. Semi-annually — Apr. and Oct. except Cook County where period is Mar.-May and Sept.-Nov. Fee is \$1.00 or more, usually \$1.00 per axle.

Note 7. Brakes, lights, horn, muffler, steering gear, windshield, windshield cleaner, number plates and rear windows.

Note 8. Brakes, lighting equipment, steering mechanism, horns, mirrors, windshield wipers and other equipment.

Note 9. Annually or semi-annually.
Note 10. Mechanism, brakes and equipment.

Note 11. At least twice, but not more than three times per year.

Note 12. Motor vehicles and trailers over 4 years old, and all used vehicles when transferred.

Note 13. Brakes, lights, steering, wheel alignment, and other equipment.

Note 14. Motor vehicles, trailers and semi's, except trailers and semi's of less than 1000 lb chassis and body weight.

	VEHICLES AFFECTED	EQUIPMENT INSPECTED	METHOD	FREQUENCY	FEE
STATES					
Colorado	All	All	Authorized stations	Note 1	Note 1
Delaware	All	All	State inspectors	Note 2	None
District of Columbia	All	All	District inspectors	Annually	\$1.00
Illinois, Note 3	Note 4	Note 5	Authorized stations	Note 6	Note 6
Maine	All	All	Authorized stations	April, Oct.	50¢
Massachusetts	All	Note 7	Authorized stations	April, Oct.	50¢
Mississippi	All	Note 8	Authorized stations	Note 9	50¢
New Hampshire	All	All	Authorized stations	May, Oct.	\$1.00
New Jersey	All	Note 10	State inspectors	Note 11	\$1.00
New Mexico	All	Note 12	Authorized stations	Note 13	\$1.00
New York	Note 14	Note 15	Authorized stations	Annually	Note 17
Pennsylvania	Note 16	Note 17	Authorized stations	Note 18	Note 17
Rhode Island	Note 18	Note 19	Authorized stations	Note 20	Note 29
Texas	Note 20	Note 21	Authorized stations	Annually	\$1.00
Utah	All	All	Authorized stations	Note 22	50¢
Vermont	All	All	Authorized stations	May, Oct.	\$1.00
Virginia	All	Note 23	Authorized stations	Note 24	\$1.00
West Virginia	All	Note 10	Authorized stations	Note 25	\$1.25
CITIES					
Chicago, Ill.			City inspection stations	Annually	None
Evansville, Ill.			City inspection stations	Semi-annually	None
Springfield, Ill.			Authorized stations	Semi-annually	50¢
Des Moines, Iowa			City inspection stations	Note 26	50¢
Omaha, Nebr.			City inspection stations		
Cincinnati, Ohio			City testing stations		
Memphis, Tenn.			City testing stations	3 per year	

Revised to March 10, 1959

Note 15. Steering mechanism, brakes, lights, horns, warning devices, mirrors, windshield wipers.

Note 16. Passenger cars: May 1-July 31, Nov. 1-Jan. 31; Commercial vehicles: Aug 1-Oct. 31, Feb. 1-April 30.

Note 17. Not set by law. Usually \$1.00 to \$1.50.

Note 18. All vehicles, trailers, semi-trailers and pole trailers over one year old.

Note 19. Brakes and other mechanical equipment as designated by motor vehicle registrar.

Note 20. All vehicles except: trailers and semi's with gross weight of 4000 lb or less; farm machinery, tractors, and trailers; vehicles of factory model 1935 and earlier if not driven on federal or state highways.

Note 21. Brakes, lighting equipment, horns, warning devices, mirrors and windshield wipers.

Note 22. During May and October, dates set by Road Commission.

Note 23. Mechanism and equipment.

Note 24. Semi-annually, between May 1 and June 15 and between October 1 and November 15.

Note 25. Annually, between July 1 and September 30.

Note 26. Semi-annually. Temporarily reduced to annually until inspection station congestion is relieved.

Note 27. Subject to approval by Commissioner.

Note 28. Annually or semi-annually.

Note 29. \$2.00, except \$1.00 for passenger cars and commercial vehicles of 10,000 lb GVW or less not including buses.

NEW TUNG-SOL 536

Two-Terminal HEAVY DUTY FLASHER

*For replacement in vehicles originally equipped
with standard two-terminal flashers*

**Like the three-terminal 534 and 535,
it's built with twice the life of other flashers**

For the first time... a two-terminal heavy duty flasher that meets the requirements of the biggest part of the truck replacement market as well as the vast majority of passenger car trailer applications — U-haul, boat and house trailers.

The new Tung-Sol 12-volt 536 is identical in performance with the 534 three-terminal type: It flashes one to six 21cp or 32cp lamps without a perceptible change in the flashing rate... delivers an instantaneous four-lamp emergency warning... lasts twice the life of other flashers... insures more positive action and great dependability. Electroswitch Division, Tung-Sol Electric Inc., Newark 4, New Jersey



ts TUNG-SOL® — *First in Flashers*



CHECK YOUR TRUCKS

Truck Performance Problems and Their Most Likely Cause

	TRUCK RATING						OPERATION						MAINTENANCE								
THE COMPLAINT ▼	MOST LIKELY CAUSE ▶	Overload	Improper Load Distribution	Too Low Numerical Gear Ratio (as 3.1 to 1)	Too High Numerical Gear Ratio (as 0.50 to 1)	Propeller Shaft Angle*	8th Wheel Location	Load Sway	Poor Driving Habits	Extreme Operating Conditions	Use of Wrong Gear	Improper Use of Inter-Axis Differential	Trailer Created Problems	Lugging Engine	Overspeeding Engine	Excessive Idle	Tire Pressure and Size	Adjustment Required	Improper Lubrication	Use of Non-Standard Parts	Incorrect Part Application
Axle Bearing Failure		●	●				●											●	●	●	●
Axle Housing Bending or Breaking		●	●				●	●		●								●		●	
Axle Shaft Failure		●							●	●		●						●		●	
Brakes Insufficient		●	●				●	●	●	●	●		●					●		●	●
Brake Lining Wear		●							●	●	●		●					●		●	●
Clutch Failure		●		●					●	●								●		●	●
Clutch Wear		●		●					●	●	●							●	●	●	●
Engine Failure		●		●					●	●	●			●	●	●		●	●	●	●
Frame Failure		●					●	●		●			●								
Lack of Power		●		●							●	●	●	●				●			●
Lack of Top Speed		●		●	●								●				●	●			
Poor Fuel Economy		●		●	●				●	●	●		●	●		●	●	●			
Rear Axle Gear Failure		●							●			●					●	●	●	●	
Shock Absorber Failure		●	●				●		●	●										●	
Spring Failure		●	●				●	●	●	●										●	●
Springs too Soft		●	●				●	●		●										●	●
Springs too Hard			●				●										●			●	●
Steering Hard		●	●				●			●							●	●	●		●
Steering Returnability Poor		●	●				●			●		●					●	●	●		
Tire Wear Excessive		●	●				●	●	●	●		●					●	●		●	●
Transmission Failure		●		●		●			●	●	●						●	●	●		●
U-Joints and Prop. Shaft Failure		●				●			●	●		●							●	●	●
Vibration, Bounce, Shake, Etc.		●	●			●	●	●		●			●				●	●			
Wheel Failure		●	●				●	●	●	●							●	●		●	●

Source: Dodge Truck Rating booklet.

*Propeller shaft is sometimes outside limits because of modified (non-standard) wheelbase.

Fourth Quarter 1958 Intercity Truck Tonnage

By Regions

Region	Fourth Quarter 1958*	Fourth Quarter 1957*	Per Cent Change
New England	4,989	4,563	+ 9.3
Middle Atlantic	17,371	16,278	+ 6.7
Central	23,635	22,802	+ 4.5
Southern	11,101	9,918	+11.9
Northwestern	4,302	3,787	+13.6
Midwestern	5,541	5,124	+ 8.1
Southwestern	6,661	6,373	+ 4.5
Rocky Mountain	2,801	2,878	- 2.7
Pacific	8,264	8,168	+ 1.2
United States	84,865	79,891	+ 6.2

By Commodities

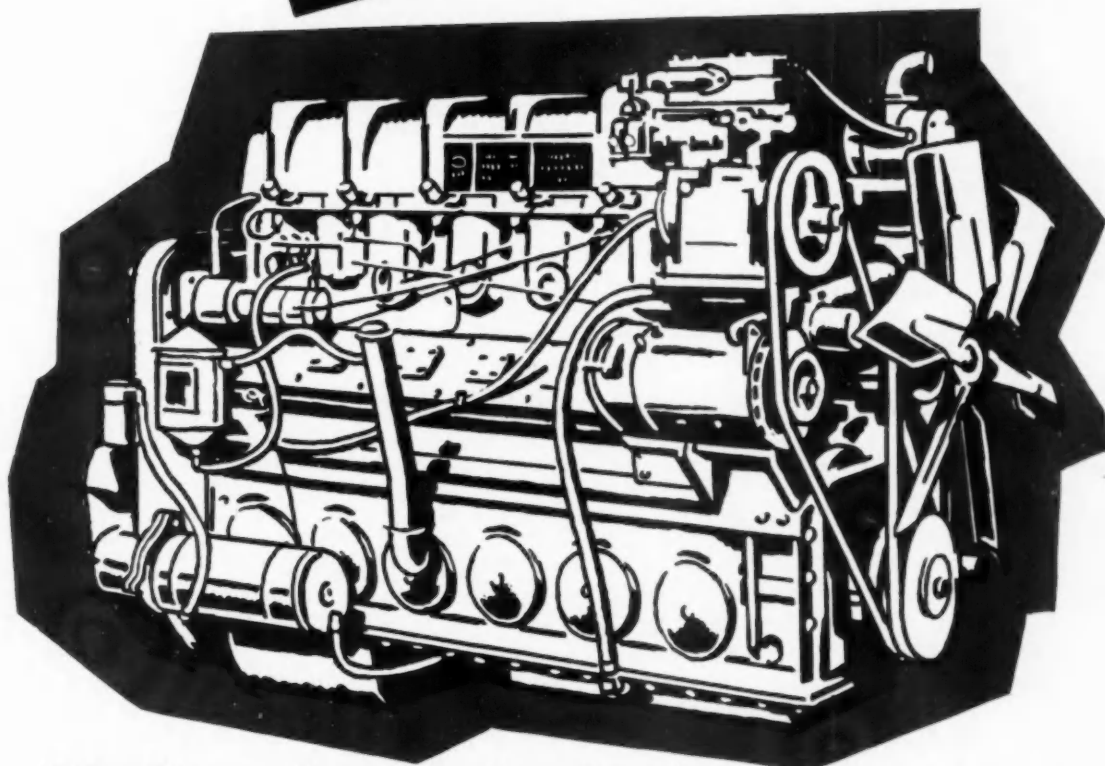
Commodity	Fourth Quarter 1958*	Fourth Quarter 1957*	Per Cent Change
General Freight	40,606	37,968	+ 6.9
Household Goods	368	347	+ 6.0
Heavy Machinery	803	775	+ 3.6
Liquid Petroleum	22,213	20,812	+ 6.7
Refrigerated Liquids	418	389	+ 7.6
Refrigerated Solids	780	773	+ 0.8
Agricultural Commodities	1,527	1,413	+ 8.1
Motor Vehicles	2,938	2,860	+ 2.7
Building Materials	1,895	1,913	- 0.9
All Other	13,317	12,542	+ 6.2
Total	84,865	79,891	+ 6.2

* In thousands of tons. Covering 2104 Class 1 and 2 intercity common and contract motor carriers of property as reported by American Trucking Assns. Research Dept. It does

not represent total truck tonnage.

HERE'S THE PROVED ALUMINUM ENGINE...

P&H DIESEL



***Aluminum is our standard...
it always has been!***

6-cyl. P&H Automotive Engine, P&H Diesels are available in 2, 3, 4 and 6 cyl. models, from 40 to 280 H.P. Also available in turbo-charged models.

Today, everybody is talking about aluminum truck engines. They offer the greatest single remaining opportunity for weight reduction. Years ago, P&H perfected aluminum diesels for truck operation, and, today, P&H offers *the only time-tested and proved* aluminum power package. P&H Diesels are up to 1,000 pounds lighter than engines of comparable power using outdated cast-iron construction.

Lightweight aluminum construction has effected many highly profitable additions to payload capacity. Today, frames, axles, wheels, transmission housings, cabs and trailers are all available in aluminum. With the installation of a P&H Diesel for the engine

—where concentration of weight is greatest—you can realize the *maximum* in payload profits from the use of aluminum.

At P&H the aluminum designed engine is not a premium priced, custom built model—it is our *standard* engine. Production know-how, low costs and reliability all go with experience. That is why the P&H Diesel is your best value in aluminum engines. Get the complete story. Write for Bulletin Z-20.

HARNISCHFEGER

P&H Diesel Engine Division
Crystal Lake, Illinois





CHECK YOUR REGS

MUD GUARD REQUIREMENTS

MUD guard provisions are included in the motor vehicle requirements of 27 states. States and their requirements are charted below.

In general, the basic requirement is that rear wheels must be protected at the top and rear by the vehicle's body or by metal protectors, flexible

flaps, or some other protective means which will minimize spray or splash to the rear, and which are at least as wide as the tires they protect.

These general requirements are referred to in the chart as "Basic." Additional requirements are listed in the footnotes. It should be noted

that there are some minor variations even in the basic requirements from state to state.

Under the heading "Vehicles Affected," the word "All" includes trucks, tractors, trailers, semi-trailers, pole trailers and buses.

Revised to March 10, 1959.

State	Vehicles Affected	Requirements	Exemptions	State	Vehicles Affected	Requirements	Exemptions
Alaska....	Trailers and semis manufactured after Jan. 1, 1958	Must be adequate	None	N. J.	All over 3 tons, gross	Basic, as approved	Pole trailers, dump trucks, tanks, and vehicles requiring complete wheel freedom
Ark.	Trailers and semis over 10,000 lb capacity under Arkansas Commerce Commission jurisdiction	Basic	None	N. Y.	All	Basic. See Note 12.	None
Cal.	All over 1500 lb net weight	Basic	None	Ohio	All over 3-ton GVV	Basic. See Note 4.	None
Conn.	All over 3 tons GVV	Basic	Farm Vehicles. Others requiring complete wheel freedom.	Okl.	All	Basic	Animal-drawn vehicles and farm tractors
Ga.	All	Basic. See Note 1.	None	Ore.	All	Basic. See Note 6.	Truck chassis not equipped for hauling a load. Truck, trailer or semi-trailer equipped with bunks
Idaho	All	Basic. See Note 6.	None	Pa.	All commercial vehicles	Basic. See Note 7.	None
Ill.	Trucks, trailers, semis	Basic. See Note 2.	See Note 2.	R. I.	All	Basic	Vehicles requiring complete wheel freedom
Maine	Trucks, trailers, semis	Basic	Trucks under 7-ton GVV, dump trucks, truck-tractors	Tenn.	All with carrying capacity of over 3000 lb	Basic, as approved	Farm vehicles. Vehicles used exclusively for hauling hogs
Mass.	All	Basic	None	Texas	Vehicles with 4 or more tires on rear axle operated on wet highways	Basic. See Note 9.	Pole trailers
Mich.	Trucks, trailers, semis	Basic. See Note 3.	None	Utah	All commercial vehicles	Basic. See Note 10.	Buses
Minn.	Trucks, trailers, semis	Basic. See Note 4.	Pole trailers. Rear end dump trucks	Va.	All with gross weight over 22,500 lb	Basic, as approved	Vehicles used exclusively for hauling hogs
Miss.	All over 10-ton GVV	Basic. See Note 5.	Pole trailers, dump trucks and trucks carrying an "F" license	Wash.	All	Basic	None
Nebr.	All new vehicles purchased after Jan. 1, 1956	Basic	None	Wis.	Truck-tractors and inter-city trucks and semi-trailers	Basic. See Note 11.	Vehicles equipped with dump bodies
N. H.	All	Basic, as approved	None				

1. Ground clearance under any loading conditions must not be more than 1/5 of the distance from center of rearmost axle to center of flaps.

2. NOT ENFORCED at present. Details given for information only. The ground clearance must be 10 in. when loaded to maximum legal capacity. Flaps may be of flexible or rigid material; must parallel road surface through top rear quarter of tires (or to within 2 in. of body if clearance between body and tires is less than 5 in.); must be as wide as tires, and must be mounted within 6 in. of tire (when fully loaded), and have lip or flange on outside edge extending at least 2 in. below flap bottom surface. Flaps on vehicle purchased before Aug. 1, 1957, must meet specifications after Jan. 1, 1958. Exemptions include intrastate vehicles capable only of using temporary splash guards approved by state police, 2-axle farm vehicles, pole trailers, dump trucks, cement mixer trucks, grain trucks, construction and drilling equipment, and vehicles operated mainly within municipalities or adjacent areas. Department of Public Safety may require non-contour flaps on exempted vehicles.

3. Guards must bar water or other road surface substances thrown from the rear wheels at tangents exceeding 22 1/2 deg measured from the road surface. If flap type device is used, it must not have attached any type of lamp, reflective material or reflecting buttons, nor can the device extend beyond the maximum width limit of the vehicle.

4. Ground clearance cannot be more than 1/5 of the horizontal distance from the center of the

rearmost axle to the flap under any conditions of loading or operation and must be at least as wide as the tires. If rear wheels are not covered at the top by fenders, protective means must extend at least to the center of the rearmost axle.

5. Ground clearance cannot be more than 1/5 of the distance from the center of the rearmost axle to the center of the flaps under any conditions of loading. Commissioner of Public Safety may exempt vehicles whose design and construction are such that the purposes of the act cannot be met. If rear wheels are not covered at top, flaps must extend to a point directly above the rearmost axle. Lamps or wiring must not be attached to protectors or flaps.

6. Trucks equipped with a body and buses, bus trailers, semitrailers and trailers must have the rear wheels guarded from a point above and forward of the center of the tire over and to the rear of the wheel to a point not more than 10 in. above the highway surface when the vehicle is empty. Trucks not equipped with bodies must have guards behind the rear wheels downward from a point not lower than halfway between the center of the wheels and the top of the tires on such wheels to a point not more than 10 in. from the highway surface when the vehicle is empty. All other motor vehicles must have guards behind all wheels, from a point above and forward of the center of the tire over and to the rear of the wheel to a point not more than 20 in. above the highway surface.

7. Device must bar water and other road surface substances thrown from the rear wheels at

tangents exceeding 22 1/2 deg measured from the road surface and passing in a straight line to the rear of the vehicle.

8. Ground clearance cannot be greater than 1/5 the horizontal distance from the center of the axle to the flap. Devices must be of a type approved by the Commissioner of Safety, Lamps, wiring or reflectorized material must not be attached to the flaps.

9. Guards or flaps must extend to within 6 in. of the highway surface and must be of approved type.

10. Ground clearance cannot be more than 1/5 of the diameter of the rear axle wheel or not more than 1/5 of the distance from the center of the axle to the flap under any condition of loading. If rear wheels are not covered at the top, the protective means must extend to at least the center line of the rearmost axle.

11. Ground clearance cannot be more than 1/3 of the horizontal distance from the center of the rearmost axle to the flap under any conditions of loading or operation; and must be at least as wide as the tires. If rear wheels are not covered at top by fenders, protective means must extend at least to the center of the rearmost axle.

12. Must be substantial and reasonably flexible. Ground clearance may not exceed 1/3 of horizontal distance from flap to point of contact of wheel with ground.

"Stainless Steel tankers cut our cleaning time 50%"

SAYS BOB MATLACK, EXECUTIVE VICE PRESIDENT,
E. BROOKE MATLACK, PHILADELPHIA, PA.

"There are about 200 different liquids represented in the one-hundred-million gallons that we haul every month," says Mr. Matlack. "We handle everything from edibles, like corn syrups and liquid sugars, to the heavy black coal tars and resins. And there's a whole range of chemicals—including acids.

"You can see the problem—after each delivery we have to be *sure* that our tanker is thoroughly cleaned out so that a new shipment isn't contaminated. This is where Stainless Steel tankers are invaluable. The Stainless resists corrosion so the inside of the tank stays bright and smooth—there's no place for residue to stick and no flakes of rust. We spray a hot detergent solvent into the tank, rinse it out with water, and then dry it with a blast of warm air. The whole job takes less than two hours.

"It takes about four hours to clean other tanks, and then we're never sure that they're really clean. We have to be careful about what they haul—there's always the danger of contamination.

"We estimate that each of our Stainless Steel tankers save \$2000 a year in cleaning costs. And there's no telling how much additional business they've brought us through customer confidence in *clean* shipments."

USS is a registered trademark



United States Steel Corporation—Pittsburgh
American Steel & Wire—Cleveland
National Tube—Pittsburgh
Columbia-Geneva Steel—San Francisco
Tennessee Coal & Iron—Fairfield, Alabama
United States Steel Supply—Steel Service Centers
United States Steel Export Company

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HYTROL is one of the most significant contributions to safety and economy that has ever been presented to the trucking industry.

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Eliminate wheel hopping...

Eliminate skidding...

under panic-stop conditions



CHECK YOUR REGS

STATE TAX GUIDE

FLEET groupings considered in this guide are . . .

1. Trucks
 - a. For-hire
 - (1) Common carrier
 - (2) Contract carrier
 - b. Private
2. Buses
 - a. Common carrier
 - b. Charter

Unless otherwise indicated as applying to one or more of the above groups, the taxes and fees listed are levied on all types of fleets. Note: Space does not permit listing of exceptions to the taxes, such as certain weight classes (usually above a specified GVW) or a particular type of carrier (for example: household goods), so you may find you are exempt from some of the taxes listed as applying to your general grouping.

While not all states have the same kind of taxes, the most common ones you'll find (with different names in different states) include. . .

- Property taxes—usually levied on a per vehicle basis and must be paid before vehicle can be registered in most cases.

- Sales taxes—usually included at time of vehicle purchase.

- Fuel taxes—very few fuels are exempt. Many states also have a "fuel use" tax requiring interstate operators to pay the state's fuel tax on all fuel used in that state even if it was bought outside.

- Registration fees—basic charges by state's motor vehicle department for privilege of using highways.

- Regulatory fees—charges levied by utility commissions to pay for regulation of for-hire carriers. Three most usually found are (1) operating authority certificate fee, (2) vehicle permit plates, (3) gross receipts tax.

- "Third Structure"—Use tax in addition to registration fees and fuel taxes, often called "mileage," "weight-distance" or "ton-mile."

- Retaliatory taxes—levied by states on vehicles from those states imposing a weight-distance tax or similar "third structure" tax not subject to reciprocity.

ALABAMA — Ad Valorem Tax, Sales and Use Tax, Gasoline Tax, Use Fuel Tax, Registration Fee, Operating

Authority Certificate Fee and Vehicle Plates (except private trucks), Seat-Mile Tax (buses only), Axle-Mile Tax (for-hire trucks only), Trip Permit Fee (for-hire trucks only).

ALASKA — Property Tax, Fuel Tax, Registration Fee, Certificate of Title Fee.

ARIZONA — Uniform Auto Lieu Tax, Privilege (sales) Tax, Gasoline Tax, Use Fuel Tax, Registration Fee, Operating Authority Certificate Fee and Vehicle Plates (except private trucks), License (gross receipts) Tax (except private trucks), Gross Income (sales) Tax (private trucks only).

ARKANSAS — Personal Property Tax, Sales Tax, Fuel Tax, Certificate of Registration Fee, Certificate of Title Fee, Registration Fee, Operating Authority Certificate Fee and Vehicle Plates (except private trucks).

CALIFORNIA—Sales and Use Tax, Gasoline Tax, Use Fuel Tax, Registration (Primary, Weight and License) Fees, Operating Authority Fee (except private trucks), Gross Receipts Tax (except private trucks), Pro-Rata Registration, Trip Permit Fee.

COLORADO — Specific Ownership Tax, Sales and Use Tax, Fuel Tax, Registration Fee, Operating Authority Fee, Mileage Tax, Pro-Rata Registration, Trip Permit Fee.

CONNECTICUT — Sales and Use Tax, Gasoline Tax, Special Fuels Tax, Fuel Use Tax, Registration Fee, Excise (income) Tax (intrastate buses only), Gross Receipts Tax (interstate buses only), Operating Authority Certificate Fee and Vehicle Plates (for-hire trucks only), Pro-Rata Registration (common carrier buses only).

DELAWARE—Gasoline Tax, Diesel Fuel Tax, Registration Fee, Occupational Tax (buses only).

DISTRICT OF COLUMBIA — Fuel Tax, Vehicle Inspection Fee, Certificate of Title Fee, Excise (or Titling) Tax, Registration Fee, License (mileage tax) Fee (common carrier buses only), License Tax (for-hire trucks and charter buses only).

FLORIDA — Sales and Use Tax, Gasoline Tax, Special Fuel Tax, Registration Fee, Operating Authority Certificate Fee (except private trucks), Operating Authority Vehicle Plates (for-hire trucks only), Mileage Tax (except private trucks), Optional (in lieu of registration fee) Mileage Tax (except private trucks).

GEORGIA—Personal Property Tax, Sales and Use Tax, Fuel Tax, Fuel Use Tax, Registration Fee, Operating Authority Certificate Fee and Carrier Registration Tax (except private trucks), Highway Use Permit Fee (except buses), Round Trip (retaliatory tax) Fee (except buses), Pro-Rata Registration (buses only).

IDAHO—Gasoline Tax, Special Fuel Tax, Registration Fee, Use (weight-distance tax) Fee, Operating Authority Fee (except private trucks), PUC Administrative (gross receipts tax) Fee, Trip Permit Fee.

ILLINOIS — Sales and Use Tax, Fuel Tax, Vehicle License Fee, Registration (Flat Weight Fees or Alternative Mileage Tax) Fees, Operating Authority Initial Application Fee and Annual Renewal Fee (for-hire trucks only), Pro-Rata Registration.

INDIANA — Gasoline Tax, Special Fuels Tax, Certificate of Title Fee, Registration Fee, Operating Authority Certificate Fee (except private trucks), PSC Vehicle Registration Fee (except private trucks), Gross Income (gross receipts) Tax (except private trucks).

IOWA—Use or Sales Tax, Gasoline Tax, Special Fuel Tax, Fuel Use Tax, Registration Fee, Carriers Compensation Tax (buses and common carrier trucks only), Operating Authority Fee (except private trucks), Pro-Rata Registration (except private trucks), Trip Permit Fee (buses and common carrier trucks only).

KANSAS—Personal Property Tax, Sales or Use Tax, Gasoline Tax, Special Fuels Tax, Fuel Use Tax, Certificate of Title Fee, Registration Fee, Operating Authority Fee, Regulatory Fee, Pro-Rata Registration, Trip Permit Fee.

KENTUCKY — Personal Property Tax, Usage Tax, Gasoline Tax, Special Fuels Tax, Fuel Use Tax, Registration Fee (except buses), Seat (registration) Fee (buses only), Mileage Tax (buses only), Operating Authority Fee and Vehicle Cab Cards (except

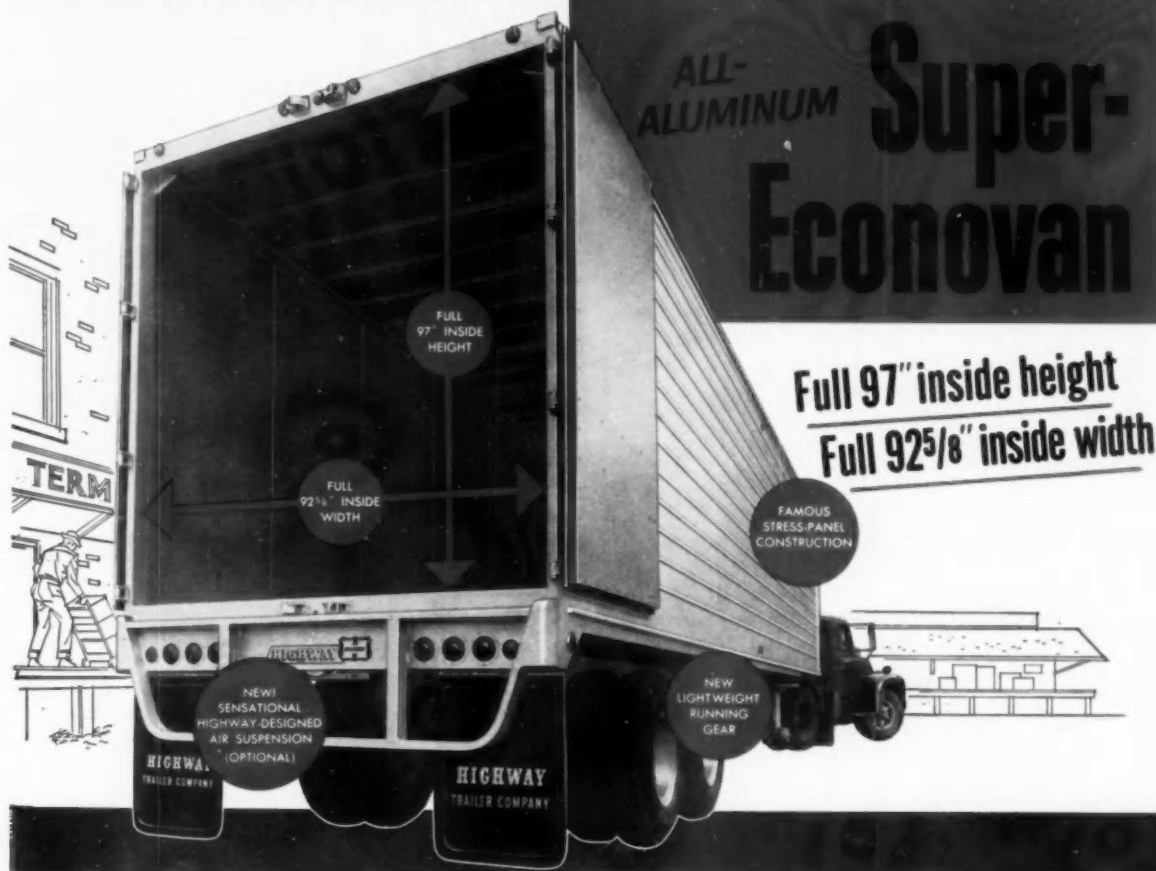
(TURN TO PAGE 248, PLEASE)

HIGHWAY'S

Outer-Panel

ALL-
ALUMINUM

Super-Econovan



THE YEAR'S BEST BUY FOR HIGH-CUBE HAULERS!



Highway's pace-setting "Level-Flor" design—featuring a full 4" upper fifth wheel—proved by years of dependable use!

Highway's all-new, outer-panel SUPER-ECONOVAN — with full 97" inside height and 92 $\frac{5}{8}$ " inside width (including liners!) — takes more high-cube cargo than any comparable van on the market! And — new, extruded aluminum roof bows and stakes, stress-skin panels and special, lightweight running gear allow many extra miles of maintenance-free hauling. Available in dry freight as well as light, medium, heavy and full reefer insulated vans. Special features also include Highway's new ICC-proposed three-bank rear lights (directional, tail and stop) and improved front connector box. Here is the finest combination of profit-making cubage and superior engineering ever built into a trailer! See your Highway representative now — he'll prove to you that in every way you get MORE with Highway!

HIGHWAY TRAILER COMPANY

Headquarters: Edgerton, Wisconsin



Manufacturers of: Commercial Trailers • Trailerized Tanks and Dry-Bulk Haulers • Cargo Containers — Land, Sea and Air • Public Utility Bodies • Earth-Boring Machines • Pole and Cable Reel Trailers • Winches • Power Take-offs • Service Accessories
SALES AND SERVICE IN PRINCIPAL CITIES





Southern-Plaza equips 74 new Kenworths with Spicer 12-Speed Transmissions

"The Spicer Synchro-Master 12, with its .80 overdrive in 12th gear, is ideal for fuel-saving operation," states Edward R. Pecora, Vice President in charge of operations for Southern-Plaza Express, Inc., Dallas, Texas.

"Coupled to a Cummins NT4, through a Spicer 14" two-plate clutch, the Spicer Synchro-Master 12 gives us a road speed of 52 MPH at a governed engine speed of 2000 rpm. When cruising, we maintain the same road speed at only 1600 rpm simply by shifting into 12th gear to benefit from the .80 overdrive.

"We think we've achieved the ultimate in fuel-saving and engine-saving economy without sacrificing trip time. That's why we specified the Spicer transmission, with a weight-saving aluminum case, for all 74 of our new Kenworth tractors."

WRITE FOR FREE BOOKLET giving a complete description of the close-stepped, fully-synchronized Synchro-Master 12 Transmission. For added information, call the Dana Engineer.



Edward R. Pecora
Vice President - Operations

DANA CORPORATION • Toledo 1, Ohio



DANA PRODUCTS Serve Many Fields:

AUTOMOTIVE: Transmissions, Universal Joints, Propeller Shafts, Axles, Power-Lok Differentials, Torque Converters, Gear Boxes, Power Take-Offs, Power Take-Off Joints, Clutches, Frames, Forgings, Stampings.

INDUSTRIAL VEHICLES AND EQUIPMENT: Transmissions, Universal Joints, Propeller Shafts, Axles, Gear Boxes, Clutches, Forgings, Stampings.

AVIATION: Universal Joints, Propeller Shafts, Axles, Gears, Forgings, Stampings.

Many of these products manufactured in Canada by Hayes Steel Products Limited, Merritton, Ontario.

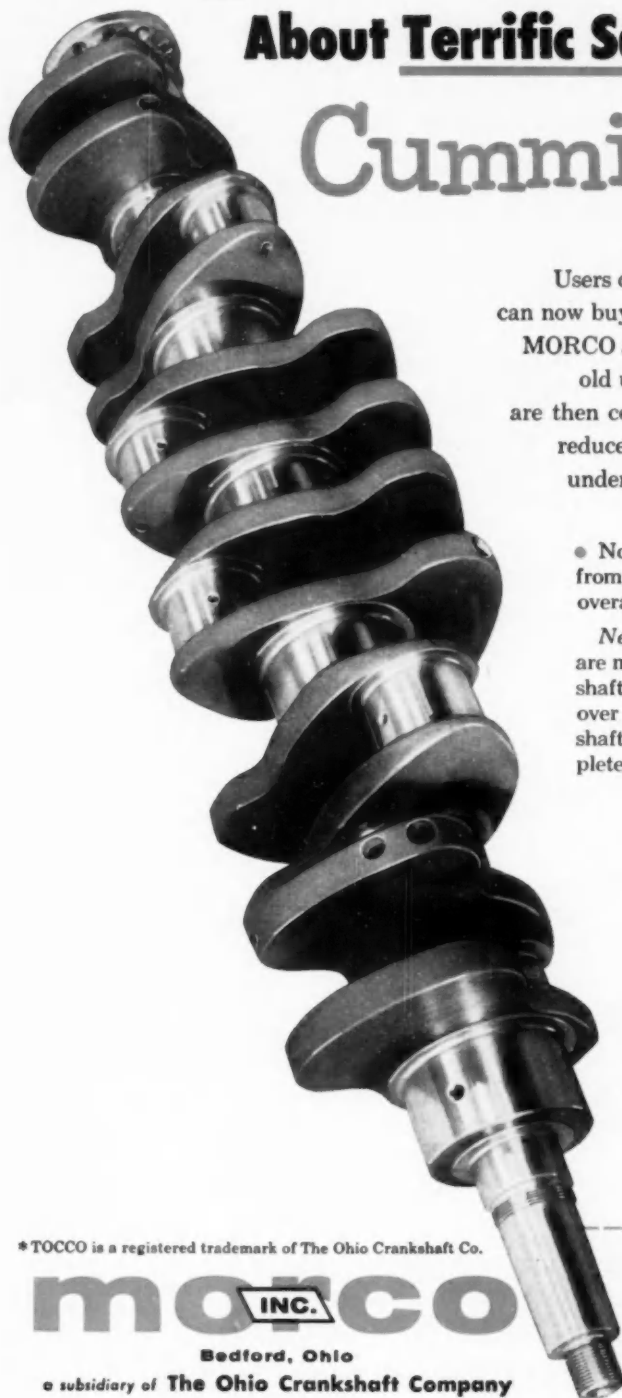
RAILROAD: Transmissions, Universal Joints, Propeller Shafts, Generator Drives, Rail Car Drives, Pressed Steel Parts, Traction Motor Drives, Forgings, Stampings.

AGRICULTURE: Universal Joints, Propeller Shafts, Axles, Power Take-Offs, Power Take-Off Joints, Clutches, Forgings, Stampings.

MARINE: Universal Joints, Propeller Shafts, Gear Boxes, Forgings, Stampings.

Important News

About Terrific Savings for Users of Cummins Engines



Users of Cummins "H" and "NH" Diesel Engines can now buy *new* standard size crankshafts from MORCO and secure liberal trade-in allowances on their old undersize shafts! These undersize shafts are then completely reconditioned and sold at reduced prices depending upon the degree of undersize involved. Your savings? Tremendous!

• Now whether you buy new or reconditioned crankshafts from MORCO, you need pay only for the portion of the overall life of the crankshaft which you actually use.

New MORCO shafts for replacement in Cummins Engines are manufactured by our parent company, The Ohio Crankshaft Company, which has manufactured crankshafts for over 35 years. If you're interested in reconditioned crankshafts — rather than new ones — look what MORCO's complete reconditioning service offers you!

Magnaflux — as many as six separate magnaflux inspections with latest equipment.

Ground on production type equipment to manufacturer's specifications. Original stroke retained.

TOCCO* Induction Hardened by the original TOCCO method when necessary.

Rolled Fillets increase strength at the most critical areas.

Dynamic Balance restored on factory balancing equipment.

Thrust Collars and surfaces repaired.

Gear Fits renewed.

Key Ways restored.

Dowel Holes repaired.

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*TOCCO is a registered trademark of The Ohio Crankshaft Co.

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Bedford, Ohio

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Morco, Inc. — Dept. 5
22201 Aurora Road, Bedford, Ohio

Please send free price list on new and reconditioned crankshafts for Cummins "H" and "NH" Engines.

Name _____
Company _____
Address _____
City _____ Zone _____ State _____

State Tax Guide

Continued from Page 244

private trucks), Excise Tax (for-hire trucks only).

LOUISIANA—Sales Tax, Gasoline Tax, Use Fuel Tax, Lube Oil Tax, Registration Fee, Operating Authority Certificate Fee and Vehicle Permits (except private trucks), Inspection and Supervision (gross receipts) Fee (for-hire trucks and common carrier buses only), Public Utility License (gross receipts) Tax (for-hire trucks only).

MAINE—Sales and Use Tax, Gasoline Tax, Use Fuel Tax, Fuel Use Tax, Vehicle Excise Tax, Personal Property Tax, Registration Fee, Operating Authority (per vehicle) Fee (common carrier buses only), Operating Authority Certificate Fee and Vehicle Permits (for-hire trucks only).

MARYLAND—Excise Tax, Certificate of Title Fee, Gasoline Tax, Special Motor Fuels Tax, Fuel Use Tax, Registration Fee (except common carrier buses), Seat-Mile Tax (common carrier buses only).

MASSACHUSETTS—Motor Vehicle Excise Tax, Gasoline Tax, Use Fuel Tax, Registration Fee, Operating Authority Application Fee and Vehicle Permits (for-hire trucks and common carrier buses only).

MICHIGAN—Sales and Use Tax, Gasoline Tax, Diesel Fuel Tax, Registration Fee, Operating Authority Fee (except private trucks), Privilege (mileage tax) Fee (except private trucks).

MINNESOTA—Gasoline Tax, Use Fuel Tax, Registration Fee, Operating Authority Certificate Fee and Identification Plate Fees (except private carriers), Pro-Rata Registration (buses only).

MISSISSIPPI—Personal Property Tax, Sales and Use Tax, Gasoline Tax, Use Fuel Tax, Registration (License Plate Fee and Privilege Taxes) Fees, Mileage Tax (private trucks only), Operating Authority Fee (except private trucks), Annual Vehicle Inspection Fee (except private trucks), Vehicle Identification Plate Fee (except private trucks), Sales (gross receipts) Tax (except private trucks), Trip Permit Fee (except private trucks).

MISSOURI—Personal Property Tax, Sales Tax, Certificate of Title Fee, Gasoline Tax, Special Fuels Tax, Registration Fee, Operating Authority Certificate Fee (except private trucks).

MONTANA—Personal Property Tax, Gasoline Tax, Special Fuels Tax, Fuel Use Tax, Registration Fee, Gross Vehicle Weight Tax, trucks only), Seat Tax (buses only), Operating Authority Fees (except private trucks), Highway Compensation (per vehicle) Fee (except private trucks), Gross Revenue Tax (except private trucks), Pro-Rata Registration.

NEBRASKA—Personal Property Tax, Certificate of Title Fee, Gasoline Tax, Use Fuel Tax, Registration Fee, Operating Authority Fee and Administrative (per vehicle) Fees (except private trucks), Retaliatory Tax.

NEVADA—Personal Property Tax, Sales and Use Tax, Gasoline Tax, Use Fuel Tax, Registration Fee, License Tax (except private trucks), Alternative (in lieu of License Tax) Mileage Tax (for-hire trucks only), Pro-Rata Registration, Trip Permit Fee.

NEW HAMPSHIRE—Gasoline Tax, Special Fuels Tax, Registration Fee, Annual PSC Vehicle Registration Fee (buses only), Operating Authority Certificate and Vehicle Plate Fees (for-hire trucks only), Retaliatory Tax.

NEW JERSEY—Fuel Tax, Registration Fee, Municipal Franchise (gross receipts) Tax (common carrier buses only), Mileage Tax (buses only).

NEW MEXICO—Excise (sales) Tax, Gasoline Tax, Special Fuels Tax, Registration Fee, Operating Authority Certificate Fee (except private trucks), Annual Equipment List (per vehicle) Fee (except private trucks), Gross Income (gross receipts) Tax (except private trucks), Port of Entry (mileage) Tax (except private trucks), Pro-Rata Registration.

NEW YORK—Gasoline Tax, Diesel Fuel Tax, Registration Fee, Operating Authority Certificate Fee except private trucks), Truck Mileage Tax.

NORTH CAROLINA—Sales and Use Tax, Certificate of Title Fee, Gasoline Tax, Special Fuels Tax, Fuel Use Tax, Registration Fee (except common carrier trucks and buses), Registration (Vehicle License Tax and

Gross Receipts Tax) Fees (common carrier trucks and buses only), Operating Authority Certificate Fee and Equipment Registration Fees (except private trucks), Trip Permit Fee. (Note: Common carrier trucks may elect to pay contract carrier truck Registration Fee in lieu of combination License Tax and Gross Receipts Tax.)

NORTH DAKOTA—Sales Tax or Motor Vehicle Excise Tax, Certificate of Title Fee, Gasoline Tax, Special Fuels Tax, Registration Fee, Non-Resident Mileage Tax (except buses), Operating Authority Fee (except private trucks), Vehicle Identification Tag Fees (for-hire trucks only), Pro-Rata Registration.

OHIO—Sales and Use Tax, Special Fuels Tax, Registration Fee, Highway Use (axle-mile) Tax (except buses), Annual Capacity (per vehicle) Fee except private trucks).

OKLAHOMA—Excise (sales), Tax, Gasoline Tax, Special Fuel Use Tax, Fuel Use Tax, Registration Fee, Operating Authority Certificate Fee and Vehicle Identification Plate Fees (except private trucks), Mileage Tax (common carrier buses only), Pro-Rata Registration (buses only).

OREGON—Gasoline Tax, Use Fuel Tax, Registration Fee, Transportation (mileage) Tax, Operating Authority Certificate Fee and Vehicle Identification Plate Fees, Pro-Rata Registration.

PENNSYLVANIA—Sales and Use Tax, Certificate of Title Fee, Gasoline Tax, Use Fuel Tax, Registration Fee, Operating Authority Fee (except private trucks), Excise (gross receipts) Tax (except private trucks).

RHODE ISLAND—Sales Tax, Gasoline Tax, Registration Fee, Operating Authority Fee (common carrier buses only), Operating Authority Fee and Vehicle Plate Fees (for-hire trucks only).

SOUTH CAROLINA—Sales and Use Tax, Gasoline Tax, Special Fuels Tax, Fuel Use Tax, Registration Fee, Vehicle License Fee (except private trucks).

SOUTH DAKOTA—License (sales) Tax, Certificate of Title Fee, Gasoline Tax, Special Fuels Tax, Registration Fee, Operating Authority Fee (except private trucks), Highway Compensation (per vehicle) Fee, Optional (in

(TURN TO PAGE 252, PLEASE)

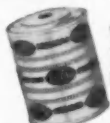
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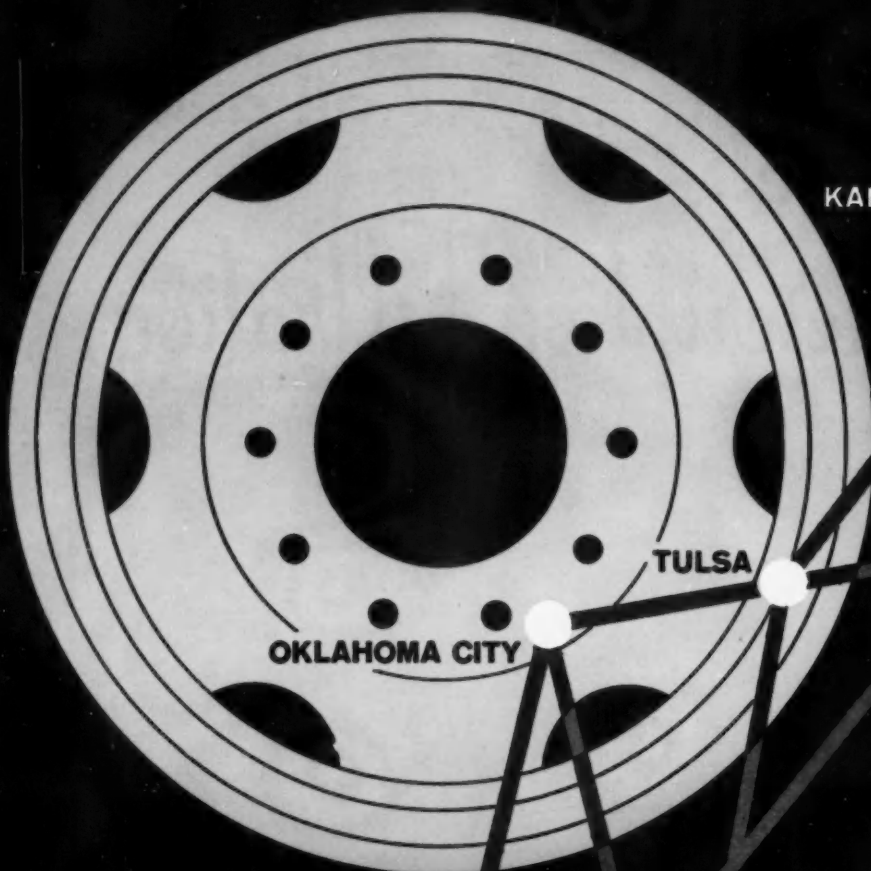
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This is a major testimonial to America's most modern wheel—the Budd heavy-duty steel wheel—which leads the way to efficient, dependable, economical hauling.

THE BUDD COMPANY • Detroit 15, Mich.

Budd



State Tax Guide

Continued from Page 248

lieu of Highway Compensation Fee) Mileage Tax.

TENNESSEE—Personal Property Tax, Sales Tax, Gasoline Tax, Special Fuel Tax, Fuel Use Tax, Registration Fee, Operating Authority Fee and Inspection Fee (except private trucks),

Pro-Rata Registration (buses only), Trip Permit Fee (trucks only).

TEXAS—Personal Property Tax, Sales Tax, Certificate of Title Fee, Gasoline Tax, Special Fuels Use Tax, Registration Fee, Operating Authority Fee and Vehicle Identification Plate Fees (except private trucks), Motor Carrier Act Administrative Fee (except private trucks), Intangible Assets Tax (except private trucks), Occupation (gross receipts) Tax (except private trucks) (Note: Occupation Tax is in lieu of Intangible Assets

Tax, applies only to first year or less of operation.)

UTAH—Personal Property Tax, Sales and Use Tax, Certificate of Title Fee, Gasoline Tax, Special Fuel Tax, Registration Fee, Operating Authority Fee and Special Identification Plate Fees (except private trucks), Sales (gross receipts) Tax (common carrier buses only), Trip Permit Fee, Alternative (in lieu of Trip Permit Fee) Mileage Tax.

VERMONT—Gasoline Tax, Registration Fee, Retaliatory Tax (except buses).

VIRGINIA—Certificate of Title Fee, Gasoline Tax, Special Fuels Tax, Fuel Use Tax, Registration Fee, Non-Resident Corporation Commission Registration Fee (private trucks only), City Street (per mile) Tax (except private trucks), Operating Authority Fee and Vehicle Registration Card Fee (except private trucks), Appraisal and Valuation (gross receipts) Tax (except private carriers), Road (gross receipts) Tax (buses only).

WASHINGTON—Excise (personal property) Tax, Sales Tax, Certificate of Title Fee, Gasoline Tax, Special Fuels Tax, Registration Fee, Additional Temporary (1958-1959) Registration Fees (except buses), Operating Authority Fee (common carrier buses only), Operating Authority Fee and Vehicle Identification Plate Fee (for-hire trucks and charter buses only), Regulatory (gross receipts) Fee (buses only), Public Utility (gross receipts) Tax (buses only), Mileage Tax (buses only), Regulatory Fees (for-hire trucks only), Pro-Rata Division of Regulatory Fees (for-hire trucks only), Pro-Rata Registration, Trip Permit Fee.

WEST VIRGINIA—Personal Property Tax, Sales Tax, Certificate of Title Fee, Fuel Tax, Fuel Use Tax, Registration Fee, PSC Vehicle License Fee (except private trucks), Privilege (gross receipts) Tax (except private trucks).

WISCONSIN—Gasoline Tax, Special Fuels Tax, Registration Fee, Operating Authority Fee and Vehicle Permit Fees (except private trucks).

WYOMING—Sales and Use Tax, Gasoline Tax, Registration Fee, Operating Authority Fee and Vehicle Identification Plates, Compensatory (vehicle-mile) Fees (buses only), Compensatory (ton-mile) Fees (trucks only), Trip Permit Fee.



STOP WHEEL SPIN WITH NoSPIN® DIFFERENTIALS to Keep Your Fleet Equipment Moving and Earning

NoSPIN differentials give you maximum traction under all operating conditions. The NoSPIN automatically directs available torque to the drive wheel having traction. Equipped with NoSPINS, your heavy and light rolling stock keeps moving safely through bad weather and over bad roads—to give you more profit-earning work.

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PROVEN PERFORMANCE—Small and large fleet operators who have once used NoSPINS insist on having them when buying new equipment. NoSPINS can be specified in original equipment or distributor supplied for replacement use. See for yourself . . .

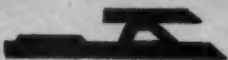
Write today for descriptive literature on
NoSPIN differentials for your equipment

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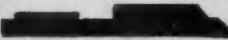
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**A NEW LIGHTWEIGHT
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**25,000 LB. CAPACITY—DOES THE JOB
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Designed primarily for users moving up to 25 trailers
per day and especially for post office, mail order, lumber
yard and small interplant operations.

Competitively priced but with the outstanding Bartlett
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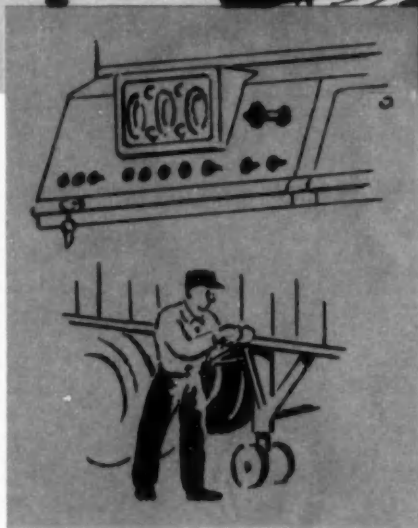
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CORNER OF ASHLAND
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Rigidized elevators and slide blocks
... does not carry load on cylinder.
Completely cab controlled ... no
hand winding.

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WHAT EFFICIENCY AND LOW COST
MEAN**

**SPOTTING TRAILERS AT THEIR WARE-
HOUSES AND DOCKS TO GET THE MOST
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CHECK YOUR SPECS

SELECTION

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SECTION

4



CHECK YOUR SPECS

1959 TRUCK SPECIFICATIONS

KEY TO DEFINITIONS

MAKE AND MODEL

Only Domestic Truck Models are listed.

OPTIONAL UNITS

For the express purpose of best fitting the truck to the individual job most of the models listed can be provided with optional engines, transmissions, axles, etc., and these models when so equipped are considered standard stock models.

CHASSIS LIST PRICE

The chassis list price applies to the minimum standard wheelbase with standard tires and standard equipment. All prices are F.O.B. factory. Chassis list price does not include the price of the Cab unless otherwise noted.

RECOMMENDED GROSS VEHICLE WEIGHT FOR NORMAL SERVICE

The Gross Weights published here-with are those supplied by manufac-

turers as their Recommended Gross Vehicle Weights for Normal Operating Conditions, and are based upon the Maximum Authorized Tire Size listed. In actual practice the manufacturer may either increase or decrease the gross vehicle weight rating when either favorable or unfavorable operating conditions are involved. Since the proper performance of a motor truck depends upon many factors, including grades, road conditions, etc., the gross weights that a manufacturer is prepared to recommend will vary with particular conditions, and the manufacturer's own standard of safety factors. Specific recommendations, therefore, should be obtained from the manufacturer's representative.

CHASSIS WEIGHT

The chassis weight listed includes the weight of the minimum standard wheelbase chassis, with cowl, with standard tires, with standard equipment, with crankcase and cooling system full, and 5 gallons of fuel in

the tank. It does not include the weight of the Cab. This applies to C.O.E. as well as conventional chassis types. Exceptions are noted.

STANDARD TIRE SIZE

The standard tire size listed is that which is included in the Chassis List Price.

MAXIMUM AUTHORIZED TIRE SIZE

The tire size listed in this column is the maximum size recommended by the manufacturer of the chassis for the Gross Vehicle Weight for Normal Operating Conditions. It is furnished at extra cost, if it differs from the standard size. Dual rear axles are understood; exceptions noted.

MINIMUM STANDARD WHEELBASE

The minimum standard wheelbase is the so-called standard wheelbase on which the Chassis List Price is based.

MAXIMUM STANDARD WHEELBASE

The maximum standard wheelbase is the extreme end of the standard range of wheelbases offered by the chassis maker.

MAXIMUM BRAKE HP.

Maximum Brake Horsepower at Given R.P.M. is actual dynamometer reading without accessories.

GEAR RATIO RANGE

Gear Ratio Range in High—Ratios within the range given are available at no extra cost. Exceptions are noted.

TRACTORS

Unless given the designation (N)—meaning not available as a tractor—all standard models may be assumed to be available as tractors. Exclusively Tractor models are designated (T).

KEY TO ABBREVIATIONS

MAKES—ALL

AL—Allison Div., General Motors Corp.
B—Bendix.
BL—Brown-Loop.
BU or BUD—Buda.
BW—Bendix-Westinghouse.
C—Chevrolet.
CL or CLA—Clark.
CON—Continental.
CU or CUM—Cummins-Diesel.
DEU—Deutz Air Cooled Diesel engine.
EAT—Eaton.
F—Ford.
FU—Fuller.

G-H—Goodyear-Hawley

type.
GMC—General Motors Corp.
H—Hotchkiss.
HER—Hercules.
HS—Hall-Scott.
INT.—International Harvester.
L—Lockheed.
LEH—Lefkol.
LH—Lockheed front.
WAG—Wagner "hi-Tork" rear.
LT—Lockheed type front Timken rear.
LW—Lockheed front, Wisconsin rear.
M—Midland.

N.P.—New Process.

O or OW—Own.
Op or Opt.—Optional.
SHU—Shuler.
SPI—Spicer.
T or TIM—Timken-Detroit Axle Co.
TW—Timken Detroit—Westinghouse.
TW—Timken-Detroit—Wisconsin.
VAR—Variable.
WAG—Wagner Gear.
Wau—Waukesha.
W or WLS—Wisconsin.
W-B—Wagner or Bendix.
WE—Wagner Electric.
WG—Wagner "hi-Tork."

W—Westinghouse.

WW—Westinghouse or Wagner.

T—Torque Tube.

FT—Full-floating, tandem drive.
P—Planetary.

REAR AXLE

Final Drive and Type

B—Bevel.
CD—Chain Drive.
F—Full-floating.
H or HY—Hypoid.
d—Dual range axle.
2—Double Reduction.
S—Spiral bevel.
W—Worm.
¾—Three Quarters Floating.
½—Semi-Floating.

GEAR RATIOS

(**)—Only one ratio.
Drive and Torque
H—Hotchkiss (springs)
R—Radius Rods.
L—Parallel Torque Rods.
T—Torque Arm.

GOVERNOR STANDARD

Y—Yes.
N—No.

KEY TO REFERENCES

c.f.—Cab Forward design.

c.o.e.—Cab-Over-Engine design.

L.c.f.—Low cab forward design.

(D)—Diesel engine equipped.

(T)—Designed for tractor use only.

(C)—Ford or Chevrolet Models.

(R)—Remanufactured Fords.

*—Denotes "Includes Cab" when used with weights or prices.

CHEVROLET

†—283 V-8 Trademaster engine available.
††—283 V-8 Taskmaster engine available.
▲—283 V-8 Super Taskmaster 4 barrel carburetor engine available.
‡—Overdrive optional.
‡—Powerglide available.
‡—Heavy duty 3 speed transmission available.
‡—4 speed transmission available.
‡—Hydramatic available.
‡—5 speed New Process transmission available.
▲▲—Powermatic available.
*—Front only; rear, 10/22.5D.
▲—283 V-8 Super Turbo-Fire 4 barrel carburetor engine available.

*—Front only; rear, 10/22.5D.

▲—283 V-8 Super Turbo-Fire 4 barrel carburetor engine available.

●—4.11 with overdrive; 3.36 with Powerglide transmissions.

‡—3.70 available.

‡—Two speed rear axle available.

‡—7.17 available.

●—348 V-8 Workmaster Special engine available.

***—5 speed close ratio Spicer available.

††—Clark 5 speed available.

‡—3.92 ratio Positraction available.

COLEMAN

●—11.00/22 also available.

■—Fu5A65 or Spicer 6352 also available.

†—Cum HBB600 also available with horsepower of 165-1800.

DIVCO

*—Front only; rear, 7.50/168.

†—Front only; rear, 7.50/208.

▲—Front only; rear, 8.25/168.

*—Front only; rear, 7.50/20D.

DUPLUX

‡—Torque Divider, Timken T70-2 speed.

FABCO

*—With 2-speed transfer case.

**—With 3-speed auxiliary and 2-speed transfer case.

RC—Chevrolet axle remanufactured.

RF—Ford axle remanufactured.

FEDERAL

*—Also available with tandem rear axle.

FORD

*—Other options available.

FWD

*—Models available with tilt cabs.

KENWORTH

††—Timken TK-500 PA Trailing Axle.

†—Both C.O.E. and cab beside engine optional.

▲▲—And 8031.

MARMON-HERRINGTON

*—Three-speed trans. opt.

MONTEPIER

*—Complete vehicle.

▲—Hercules CV4-180 engine available.

OSHKO

†—14.00/20 front.

REO

▲—Model OA-145 and 331-OA LPG engines can be furnished.

†—Two speed axle available.

‡—Model 255-OA-LPG or OA-130 engine can be furnished.

■—OH-160 LPG or OH-185 engine can be furnished.

▲—Includes cab, fuel, oil, water.

■—Cummins HRF5, NH195, NH220, NTO engines can be furnished.

*—Model OV-235 or OV-220 LPG engine can be furnished.

†—OH-170, 330 OA-LPG or OH-160-LPG or

OH-185 engine can be furnished.

▲—OA-145 or 331-OA-LPG, OH-160-LPG or OH-185 engine can be furnished.

●—Rear only; front, 11.00/20.

STUDEBAKER

*—Two speed 5.93-8.10 or 6.48-8.86 optional.

▲—Two speed 6.16-8.48 or 6.61-9.09 optional.

TRUCKSTELL

††—With 3 speed power divider.

▲—Weight with cab and maximum tires.

WARD LA FRANCE

‡—Available with optional rear axles.

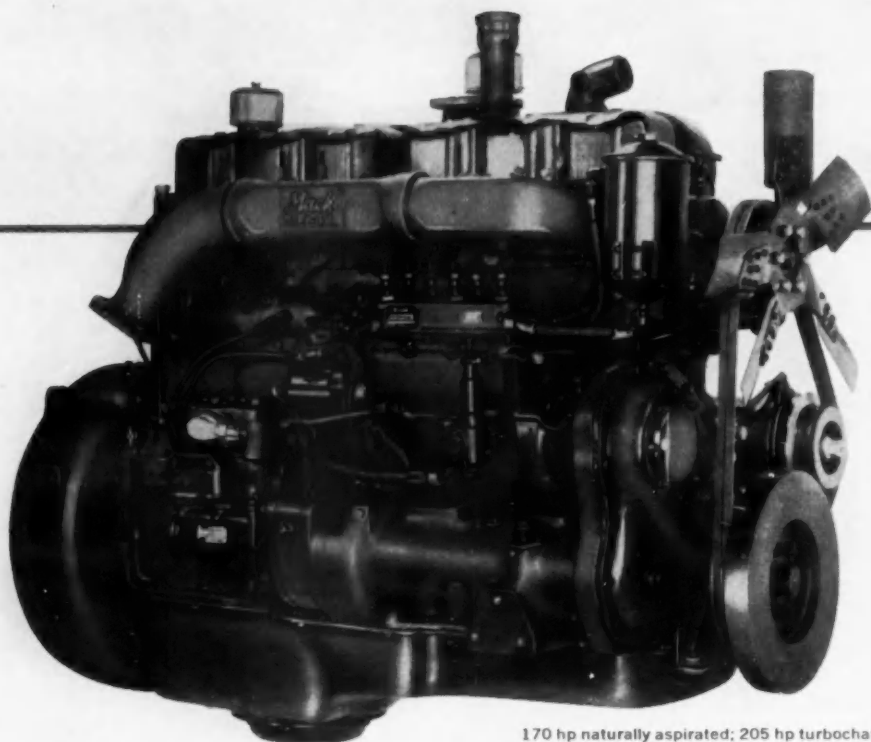
▲▲—Available with 11.00/22 or 12.00/20 tires for G.V.W. of 60,000 lbs and optional front and rear axles.

▲▲—Auxiliary transmission, Fuller 3A65, 3B65, 3A92 and 3B92.

WILLIS

*—Overdrive optional.

MAKE AND MODEL	WHEEL-BASE		Gross Vehicle Weight for Normal Service	TIRE SIZES			ENGINE DETAILS					TRANSMISSION		REAR AXLE				
	Minimum Standard	Maximum Standard		Standard Front and Rear	D-dual rear S-single rear		Make and Model	No. of Cylinders, Valves and Stroke	Displacement	Comp. Ratio	Torque lb. ft.	Max. Brake H.P. at R.P.M. Given	Make and Model	Forward Speeds	Make and Model	Gear and Type	Drive and Torque	Gear Ratio Range in High
					Maximum Authorized Tire Size (Duals unless noted)													
Chevrolet	G59	119	4900	3750 8.00 14S	8.50 14S	O-Hi. Thrift.	6-3-1/2x11	236	8.3	217	135-4000	Own T9	3	Own	H	H	5.57-6.16	
	H59	119	4900	3750 8.00 14S	8.50 14S	O-Turbo-Fire	6-3-1/2x11	283	8.5	275	160-4000	Own T9	3	Own	H	H	5.57-6.16	
	3A59	114	5000	3055 6.70 15S	7/17.5S	O-Th. Mas.†	6-3-1/2x11	236	8.3	217	135-4000	Own T9	3	Own	H	H	5.57-6.16	
	3B59	123	5000	3130 6.70 15S	7/17.5S	O-Th. Mas.†	6-3-1/2x11	236	8.3	217	135-4000	Own T9	3	Own	H	H	5.57-6.16	
	(c.f.)	3C59	104	10000	2815 7/17.5S	8/19.5	O-Th. Mas. Sp.	6-3-1/2x11	236	8.3	217	135-4000	Own T9	3	Own	H	H	5.57-6.16
	(c.f.)	3D59	125	10000	2925 7/17.5S	8/19.5	O-Th. Mas. Sp.	6-3-1/2x11	236	8.3	217	135-4000	Own T9	3	Own	H	H	5.57-6.16
	(c.f.)	3F59	137	10000	2955 7/17.5S	8/19.5	O-Th. Mas. Sp.	6-3-1/2x11	236	8.3	217	135-4000	Own T9	3	Own	H	H	5.57-6.16
	3E59	123	8900	3855 7/17.5S	7/17.5	7/17.5	O-Th. Mas.†	6-3-1/2x11	236	8.3	217	135-4000	Own T9	3	Own	H	H	5.57-6.16
	3G59	135	9600	3890 8/17.5S	8/19.5	8/19.5	O-Th. Mas.†	6-3-1/2x11	236	8.3	217	135-4000	Own T9	4	Own	H	H	5.57-6.16
	4A59	132	14000	4465 7/22.5D	8/22.5	8/22.5	O-Th. Mas.†	6-3-1/2x11	236	8.3	217	135-4000	Own T9	4	Own	H	H	5.57-6.16
	(L.c.f.)	4B59	156	14000	4610 7/22.5D	8/22.5	O-Th. Mas.†	6-3-1/2x11	236	8.3	217	135-4000	Own T9	4	Own	H	H	5.57-6.16
	(L.c.f.)	5D59	112	15000	5145 8/22.5D	9/22.5	O-Task. Mas.†	6-3-1/2x11	283	8.0	270	160-4200	Own T9	4	Own	H	H	5.57-6.16
	(L.c.f.)	5L59	124	15000	5195 8/22.5D	9/22.5	O-Task. Mas.†	6-3-1/2x11	283	8.0	270	160-4200	Own T9	4	Own	H	H	5.57-6.16
	(L.c.f.)	5E59	136	15000	5240 8/22.5D	9/22.5	O-Task. Mas.†	6-3-1/2x11	283	8.0	270	160-4200	Own T9	4	Own	H	H	5.57-6.16
	(L.c.f.)	5F59	160	15000	5325 8/22.5D	9/22.5	O-Task. Mas.†	6-3-1/2x11	283	8.0	270	160-4200	Own T9	4	Own	H	H	5.57-6.16
	6B59	132	15000	5000 8/22.5D	9/22.5	9/22.5	O-Job. Mas.†	6-3-1/2x11	261	8.0	235	150-4000	Own T9	4	Own	H	H	5.57-6.16
	6R59	144	15000	5050 8/22.5D	9/22.5	9/22.5	O-Job. Mas.†	6-3-1/2x11	261	8.0	235	150-4000	Own T9	4	Own	H	H	5.57-6.16
	6Q59	156	15000	5125 8/22.5D	9/22.5	9/22.5	O-Job. Mas.†	6-3-1/2x11	261	8.0	235	150-4000	Own T9	4	Own	H	H	5.57-6.16
	6H59	174	15000	5220 8/22.5D	9/22.5	9/22.5	O-Job. Mas.†	6-3-1/2x11	261	8.0	235	150-4000	Own T9	4	Own	H	H	5.57-6.16
	6T59	196	15000	5385 8/22.5D	9/22.5	9/22.5	O-Job. Mas.†	6-3-1/2x11	261	8.0	235	150-4000	Own T9	4	Own	H	H	5.57-6.16
	(L.c.f.)	5A59	112	19000	5145 8/22.5D	9/22.5	O-Task. Mas.†	6-3-1/2x11	283	8.0	270	160-4200	Own T9	4	Own	H	H	5.57-6.16
	(L.c.f.)	5L59	124	19000	5195 8/22.5D	9/22.5	O-Task. Mas.†	6-3-1/2x11	283	8.0	270	160-4200	Own T9	4	Own	H	H	5.57-6.16
	(L.c.f.)	5E59	136	19000	5240 8/22.5D	9/22.5	O-Task. Mas.†	6-3-1/2x11	283	8.0	270	160-4200	Own T9	4	Own	H	H	5.57-6.16
	(L.c.f.)	5F59	160	19000	5325 8/22.5D	9/22.5	O-Task. Mas.†	6-3-1/2x11	283	8.0	270	160-4200	Own T9	4	Own	H	H	5.57-6.16
	6A59	132	19000	5000 8/22.5D	9/22.5	9/22.5	O-Job. Mas.†	6-3-1/2x11	261	8.0	235	150-4000	Own T9	4	Own	H	H	5.57-6.16
	6P59	144	19000	5050 8/22.5D	9/22.5	9/22.5	O-Job. Mas.†	6-3-1/2x11	261	8.0	235	150-4000	Own T9	4	Own	H	H	5.57-6.16
	6S59	156	19000	5125 8/22.5D	9/22.5	9/22.5	O-Job. Mas.†	6-3-1/2x11	261	8.0	235	150-4000	Own T9	4	Own	H	H	5.57-6.16
	6C59	174	19000	5220 8/22.5D	9/22.5	9/22.5	O-Job. Mas.†	6-3-1/2x11	261	8.0	235	150-4000	Own T9	4	Own	H	H	5.57-6.16
	6V59	196	19000	5385 8/22.5D	9/22.5	9/22.5	O-Job. Mas.†	6-3-1/2x11	261	8.0	235	150-4000	Own T9	4	Own	H	H	5.57-6.16
	(L.c.f.)	5G59	112	21000	5225 8/22.5D	10/22.5	O-Task. Mas.†	6-3-1/2x11	283	8.0	270	160-4200	Own T9	4	Own	H	H	5.57-6.16
	(L.c.f.)	5M59	124	21000	5275 8/22.5D	10/22.5	O-Task. Mas.†	6-3-1/2x11	283	8.0	270	160-4200	Own T9	4	Own	H	H	5.57-6.16
	(L.c.f.)	5H59	136	21000	5310 8/22.5D	10/22.5	O-Task. Mas.†	6-3-1/2x11	283	8.0	270	160-4200	Own T9	4	Own	H	H	5.57-6.16
	(L.c.f.)	5J59	160	21000	5405 8/22.5D	10/22.5	O-Task. Mas.†	6-3-1/2x11	283	8.0	270	160-4200	Own T9	4	Own	H	H	5.57-6.16
	6L59	132	21000	5085 9/22.5*	10/22.5	10/22.5	O-Task. Mas.†	6-3-1/2x11	283	8.0	270	160-4200	Own T9	4	Own	H	H	5.57-6.16
	6S59	144	21000	5135 9/22.5*	10/22.5	10/22.5	O-Task. Mas.†	6-3-1/2x11	283	8.0	270	160-4200	Own T9	4	Own	H	H	5.57-6.16
	6M59	156	21000	5205 9/22.5*	10/22.5	10/22.5	O-Task. Mas.†	6-3-1/2x11	283	8.0	270	160-4200	Own T9	4	Own	H	H	5.57-6.16
	6N59	174	21000	5305 9/22.5*	10/22.5	10/22.5	O-Task. Mas.†	6-3-1/2x11	283	8.0	270	160-4200	Own T9	4	Own	H	H	5.57-6.16
	6U59	196	21000	5400 9/22.5*	10/22.5	10/22.5	O-Task. Mas.†	6-3-1/2x11	283	8.0	270	160-4200	Own T9	4	Own	H	H	5.57-6.16
	(c.f.)	6J59	128	18000	4250 8/22.5D	9/22.5	O-Job. Mas.	6-3-1/2x11	261	8.0	235	150-4000	Own T9	4	Own	H	H	5.57-6.16
	(c.f.)	6K59	153	18000	4320 8/22.5D	9/22.5	O-Job. Mas.	6-3-1/2x11	261	8.0	235	150-4000	Own T9	4	Own	H	H	5.57-6.16
	(Sc. Bus Ch.)	4C59	156	13000	4335 7/22.5D	8/22.5	O-Th. Mas.†	6-3-1/2x11	236	8.3	217	135-4000	Own T9	4	Own	H	H	5.57-6.16
	(Sc. Bus Ch.)	6D59	196	18000	5115 8/22.5D	9/22.5	O-Job. Mas.†	6-3-1/2x11	261	8.0	235	150-4000	Own T9	4	Own	H	H	5.57-6.16
	(Sc. Bus Ch.)	6E59	222	18000	5130 8/22.5D	9/22.5	O-Job. Mas.†	6-3-1/2x11	261	8.0	235	150-4000	Own T9	4	Own	H	H	5.57-6.16
	(Sc. Bus Ch.)	8F59	240	20000	5755 9/22.5D	10/22.5	O-Sup. Taskmas.	8-3-1/2x11	283	8.0	275	175-4400	Own T9	4	Own	H	H	5.57-6.16
	(Sc. Bus Ch.)	10F59	240	22000	6100 9/22.5D	10/22.5	O-Ld. Mas.	8-4-1/2x11	322	7.7	185	160-4200	NP	5	Own	H	H	5.57-6.16
	(L.c.f.)	7A59	112	22000	5645 8/22.5D	10/22.5	O-Sup. Task.	8-3-1/2x11	283	8.0	275	175-4400	Own T9	4	Own	H	H	5.57-6.16
	(L.c.f.)	7B59	124	22000	5680 8/22.5D	10/22.5	O-Sup. Task.	8-3-1/2x11	283	8.0	275	175-4400	Own T9	4	Own	H	H	5.57-6.16
	(L.c.f.)	7C59	172	22000	6050 8/22.5D	10/22.5	O-Sup. Task.	8-3-1/2x11	283	8.0	275	175-4400	Own T9	4	Own	H	H	5.57-6.16
	8A59	132	22000	5545 8/22.5D	10/22.5	10/22.5	O-Sup. Task.	8-3-1/2x11	283	8.0	275	175-4400	Own T9	4	Own	H	H	5.57-6.16
	8B59	144	22000	5665 8/22.5D	10/22.5	10/22.5	O-Sup. Task.	8-3-1/2x11	283	8.0	275	175-4400	Own T9	4	Own	H	H	5.57-6.16
	8C59	156	22000	5680 8/22.5D	10/22.5	10/22.5	O-Sup. Task.	8-3-1/2x11	283	8.0	275	175-4400	Own T9	4	Own	H	H	5.57-6.16
	8D59	174	22000	5885 8/22.5D	10/22.5	10/22.5	O-Sup. Task.	8-3-1/2x11	283	8.0	275	175-4400	Own T9	4	Own	H	H	5.57-6.16
	8E59	192	22000	5980 8/22.5D	10/22.5	10/22.5	O-Sup. Task.	8-3-1/2x11	283	8.0	275	175-4400	Own T9	4	Own	H	H	5.57-6.16
	(L.c.f.)	9A59	112	25000	6355 9/22.5D	11/22.5	O-Work. Mas.	8-4-1/2x11	348	7.8	335	230-4400	Spl.	5	Eaton	S	S	5.14-6.80
	(L.c.f.)	9B59	124	25000	6540 9/22.5D	11/22.5	O-Work. Mas.	8-4-1/2x11	348	7.8	335	230-4400	Spl.	5	Eaton	S	S	5.14-6.80
	(L.c.f.)	9C59	172	25000	6740 9/22.5D	11/22.5	O-Work. Mas.	8-4-1/2x11	348	7.8	335	230-4400	Spl.	5	Eaton	S	S	5.14-6.80
	10A59	132	25000	6355 9/22.5D	11/22.5	11/22.5	O-Work. Mas.	8-4-1/2x11	348	7.8	335	230-4400	Spl.	5	Eaton	S	S	5.14-6.80
	10B59	144	25000	6435 9/22.5D	11/22.5	11/22.5	O-Work. Mas.	8-4-1/2x11	348	7.8	335	230-4400	Spl.	5	Eaton	S	S	5.14-6.80
	10C59	156	25000	6515 9/22.5D	11/22.5	11/22.5	O-Work. Mas.	8-4-1/2x11	348	7.8	335	230-4400	Spl.	5	Eaton	S	S	5.14-6.80
	10D59	174	25000	6630 9/22.5D	11/22.5	11/22.5	O-Work. Mas.	8-4-1/2x11	348	7.8	335	230-4400	Spl.	5	Eaton	S	S	5.14-6.80
	10E59	192	25000	6690 9/22.5D	11/22.5	11/22.5	O-Work. Mas.	8-4-1/2x11	348	7.8	335	230-4400	Spl.	5	Eaton	S	S	5.14-6.80
	(Tan.)	8C59	156	28000	8325 8/22.5D	9/22.5	O-Sup. Task.	8-3-1/2x11	283	8.0	275	175-4400	Own T9	4	Own	H	H	5.57-6.16
	(Tan.)	8D59	174	28000	8510 8/22.5D	9/22.5	O-Sup. Task.	8-3-1/2x11	283	8.0	275	175-4400	Own T9	4	Own	H	H	



170 hp naturally aspirated; 205 hp turbocharged. 4" turbo-charger is of latest design; oil cooled by engine lubrication system; full-flow engine-oil filtration.

MACK THERMODYNE® DIESEL

PROVED

by diesel truck sales figures
by fuel-and-maintenance figures
by mileage figures

**Most economical, longest lived
truck engine built today!**

Mack swept the field by far in the sale of diesel trucks for the sixth straight year in 1958—with 40.3% of the market in the U.S.A.—nearly twice as many vehicles as the next nearest make.

That fact alone proves the overwhelming efficiency and long mileage life of the Mack Thermodyne diesel engine.

Want more proof that Thermodyne diesels can't be touched for operating economy? Mack files are full of reports from major fleets like this one*.

No. of Mack diesels in operation.....	53
Monthly mileage per unit.....	12,000 to 14,000
Mileage before major overhaul.....	up to 400,000 miles
Fuel (average).....	7.1 mpg.

Maintenance (parts, labor, PM inspection, lubrication).....	\$.0104 per mile
Availability.....	99%
GCW.....	56,000 lbs.

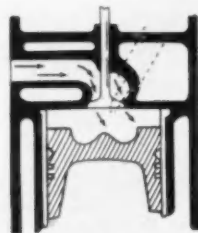
If you're a truck operator who wants a proved engine—proved *best* in every test of economy, stamina and performance for over six straight years—that engine is the Mack Thermodyne diesel. What's more, you avoid heavier, compromise engines of comparable rating that rob you of more than 400 pounds of payload every trip. *Can you afford NOT to own Macks?*

Mack Trucks, Inc., Plainfield, New Jersey. In Canada: Mack Trucks of Canada, Ltd. *name and full facts upon request

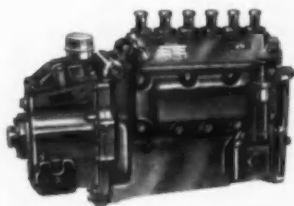
MACK TRUCKS ARE **1**ST—BY FAR—in DIESEL SALES BECAUSE

ONLY MACK TRUCKS OFFER MACK THERMODYNE DIESEL ENGINES

PROVED **No. 1 in economy—and here's why:**



Air Swirl Combustion System, showing direction of intake air as it creates a fuel-atomizing swirl in the combustion area.



Multiple-Unit Injection Pump with Governor.

Exclusive Air Swirl Combustion System gives Mack diesel engines highest thermal efficiency of any truck engine built in this country. Angled intake passage creates a rapid swirl of air in the combustion area. This tiny but potent tornado atomizes the fuel spray evenly throughout the combustion area. And this is achieved without multi-valve design while still retaining rotating valves; without complicated blowers; without ultra-high pressure injection nozzles which clog and require frequent servicing.

Full retardation of the high compression engine, while drifting or coasting, gives you major fuel savings and longer lasting brakes. It's made possible because only Mack uses the highly efficient, easy-to-maintain Multiple-Unit Injection System—with injection plungers located in a single unit and with moderate-pressure fuel lines leading to nozzles in each cylinder—with a governor that allows complete shutoff of fuel.

PROVED **No. 1 in long life—and here's why:**

Everlasting timing gears never need replacing . . . keep valve and injection timing forever constant.

Durafaced valve lifters. An inlay of super-hard tungsten carbide is bonded to the surface of each valve lifter and polished to mirror-like smoothness. This permits higher valve-lift for greatest breathing capacity. Cams and lifters remain unaffected by friction-wear—another feature that preserves original valve timing.

Permafit valve seat inserts that won't work loose, warp, nor crack surrounding metal. Their inside facing stays hard, smooth, bright and undistorted at all operating temperatures and preserves the compression seal.

Fully-counterbalanced crankshaft has electrically-hardened journals providing long-wearing surfaces with great toughness. "Skewed" oil passages in the crankshaft deliver oil to the connecting-rod bearings at a wedging angle . . .

assure most effective oil film formation.

Angle-split connecting rod caps permit use of larger crankpins of 3" diameter with more bearing surface which assures longer engine life. These crankpins are hollowed to allow a mixture of oil spray and air to further cool the bearing—from inside.

Full-length water jackets, with water first directed towards hottest metal, promote uniformity of temperature throughout the engine. Result—cooler valves and injection nozzles; cylinder-sleeve and ring wear are reduced.

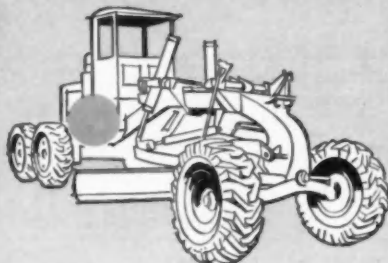
Flange-mounted air compressor is gear driven to eliminate the failure-factor of belt drives. Water cooled for greater pumping efficiency. Lubricated directly from engine through drilled passages, eliminating possibility of leaky lines . . . or inadequate lubrication.

MACK first name for TRUCKS

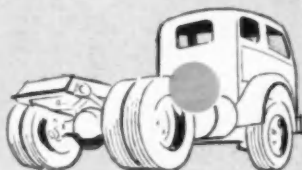
1959 TRUCK SPECIFICATIONS

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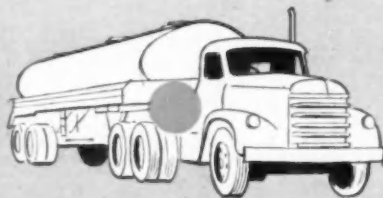
MAKE AND MODEL	WHEEL-BASE		Gross Vehicle Weight for Normal Service	Chassis Weight (See definition)	TIRE SIZES		Maximum Authorized Tire Size (Duals unless noted)	Make and Model	ENGINE DETAILS				TRANSMISSION		REAR AXLE				
	Minimum Standard	Maximum Standard			Standard Front and Rear	D-dual rear S-single rear			No. of Cylinders, Bore and Stroke	Displacement	Comp. Ratio	Torque lb. ft.	Max. Brake H.P. at R.P.M. Given	Make and Model	Forward Speeds	Make and Model	Gear and Type	Drive and Torque	Gear Ratio Range in High
Dodge—Cont d																			
M6-D200	116	116	7500		6.50/16S	8.19/5S	Own	6-3 1/2x4 1/2	230	7.9	202	120-3600	WG T85E	3	Spl 60	Hy	H 4.1-4.89		
M6-D200	116	116	7500		6.50/16	8.19/5S	Own	6-3 1/2x4 1/2	318	8.2	290	205-4400	WG T85E	3	Spl 60	Hy	H 4.1-4.89		
M6-D300	126	126	9000		7.17/5S	8.19/5S	Own	6-3 1/2x4 1/2	230	7.9	202	120-3600	NP 420	4	Own D300	Hy	H 4.1-4.89		
M6-D300	126	126	9000		7.17/5S	7.17/5S	Own	6-3 1/2x4 1/2	251	7.1	216	125-3600	NP 420	4	Own D300	Hy	H 4.1-4.89		
M6-D400	129	129	15000		7.22/5	9.22/5	Own	6-3 1/2x4 1/2	251	7.1	216	125-3600	NP 420	4	Own D400	Hy	H 5.62-6.83		
M6-D400	129	129	15000		7.22/5	9.22/5	Own	6-3 1/2x4 1/2	318	8.2	292	207-4400	NP 420	4	Own D400	Hy	H 5.62-6.83		
M6-D500	129	129	15000		8.22/5	10.22/5	Own	6-3 1/2x4 1/2	251	7.1	216	125-3600	NP 420	4	Tim F147	Hy	H 6.2-6.8		
M6-D500	129	129	15000		8.22/5	10.22/5	Own	6-3 1/2x4 1/2	318	8.2	292	207-4400	NP 420	4	Tim F147	Hy	H 6.2-6.8		
M6-D600	129	129	22000		8.22/5	10.22/5	Own	6-3 1/2x4 1/2	251	7.1	216	125-3600	NP 420	4	Eat 1614	Hy	H 6.5-7.17		
M6-D600	129	129	22000		8.22/5	10.22/5	Own	6-3 1/2x4 1/2	318	8.2	292	207-4400	NP 420	4	Eat 1614	Hy	H 6.5-7.17		
M6-D700	129	129	29000		9.22/5	12.22/5	Own	6-3 1/2x4 1/2	354	7.5	319	218-3900	NP 540	5	Tim H141	Hy	H ** -6.8		
M6-D700	132	132	29000		10.22/5	12.22/5	Own	6-3 1/2x4 1/2	354	7.5	340	224-3900	Cla 265V	5	Tim L140	Hy	H ** -7.2		
M6-D900	132	132	39000		11.22/5	12.22/5	Own	6-3 1/2x4 1/2	354	7.5	340	234-3900	Cla 300	5	Tim QT140	Hy	H ** -7.4		
(c.o.e.) M6-C500	108	162	19500		8.22/5	10.22/5	Own	6-3 1/2x4 1/2	315	7.6	300	210-4400	NP 420	4	Tim F147	Hy	H 6.2-6.8		
(c.o.e.) M6-C600	108	162	22000		8.22/5	10.22/5	Own	6-3 1/2x4 1/2	315	7.6	300	210-4400	NP 540	5	Eat 1614	Hy	H 6.5-7.17		
(c.o.e.) M6-C700	108	162	25000		9.22/5	10.22/5	Own	6-3 1/2x4 1/2	354	7.5	319	218-3900	NP 540	5	Eat 1614	Hy	H 6.5-7.17		
(c.f.) M6-P300	104	126	9000		7.17/5S	8.19/5S	Own	6-3 1/2x4 1/2	230	7.9	202	120-3600	WG T87E	3	Own P300	Hy	H 4.1-4.89		
(c.f.) M6-P300	104	126	9000		7.17/5S	7.17/5S	Own	6-3 1/2x4 1/2	251	7.1	216	125-3600	WG T87E	3	Own P300	Hy	H 4.1-4.89		
(c.f.) M6-P400	108	153	15000		8.19/5S	8.22/5	Own	6-3 1/2x4 1/2	230	7.9	202	120-3600	WG T87E	3	Own P400	Hy	H 5.62-6.83		
(c.f.) M6-P400	108	153	15000		8.19/5S	8.22/5	Own	6-3 1/2x4 1/2	318	8.2	292	205-4400	WG T87E	3	Own P400	Hy	H 5.62-6.83		
(Sc. Bus.) M6-S400	153	153	15000		7.22/5	8.22/5	Own	6-3 1/2x4 1/2	251	7.1	216	125-3600	NP 420	4	Own S400	HF	H 5.62-6.83		
(Sc. Bus.) M6-S400	153	153	15000		7.22/5	8.22/5	Own	6-3 1/2x4 1/2	318	8.2	292	207-4400	NP 420	4	Own S400	HF	H 5.62-6.83		
(Sc. Bus.) M6-S500	193	217	19500		8.22/5	10.22/5	Own	6-3 1/2x4 1/2	251	7.1	216	125-3600	NP 420	4	Tim F147	HF	H 6.2-6.8		
(Sc. Bus.) M6-S500	193	217	19500		8.22/5	10.22/5	Own	6-3 1/2x4 1/2	318	8.2	292	207-4400	NP 420	4	Tim F147	HF	H 6.2-6.8		
(Sc. Bus.) M6-S600	236	236	22000		8.22/5	10.22/5	Own	6-3 1/2x4 1/2	315	7.6	300	210-4400	NP 420	4	Eat 1614	HF	H 6.5-7.17		
(Sc. Bus.) M6-S700	236	254	23000		8.22/5	10.22/5	Own	6-3 1/2x4 1/2	354	7.5	319	218-3900	NP 540	5	Tim H141	HF	H ** -6.8		
Duplex																			
T-308	136	220	23000	*6600 8.25/20	9.00/20	Int BD308	6-3 1/2x4 1/2	308	6.5	273	145-3600	Fu SB330	5	Tim H140	B	H ** -7.2			
R-427	136	220	30000	*8200 9.00/20	11.00/20	Con B6427	6-4 1/2x4 1/2	427	6.6	325	141-2500	Fu SA43	5	Tim QT340	Fd	R 6.42-8.38			
R-450	136	220	30000	*8500 9.00/20	11.00/20	Int RD450	6-4 1/2x4 1/2	450	6.5	388	182-3000	Fu SA43	5	Tim QT340	Fd	R 6.42-8.38			
KH	148	220	34000	*10500 11.00/20	12.00/20	Her RXC	6-4 1/2x5 1/2	529	5.4	395	132-2300	Fu SA620	5	Tim U200	2F	R ** -9.76			
K-501	148	220	34000	*10500 11.00/20	12.00/20	Int RD501	6-4 1/2x5 1/2	501	6.5	444	212-3000	Fu SA620	5	Tim U200	2F	R ** -9.76			
L	148	220	37000	*11300 11.00/20	12.00/20	Her RXLD	6-4 1/2x5 1/2	558	5.4	430	154-2400	Fu SC650	5	Tim U200	2F	R ** -9.76			
(D) L-6602	148	220	37000	*11500 11.00/20	12.00/20	Con R6602	6-4 1/2x5 1/2	602	6.1	465	200-2600	Fu SC650	5	Tim U200	2F	R ** -9.76			
LC-600	148	220	37000	*12900 11.00/20	12.00/20	Cum HRB600	6-5 1/2x6	743	16.0	540	165-1800	Fu SC650	5	Tim U200	2F	R ** -6.42			
Federal																			
D200R1	145	193	22000	*6570 8.25/20		Her JXD	6-4x4 1/2	320		254	125-3200	Cla 205V	5	Tim H140	H	** -7.20			
(D) D200R1	145	193	22000	*6990 8.25/20		Con TD6427	6-4 1/2x4 1/2	427		307	116-2400	Cla 290V	5	Tim H140	H	** -6.17			
D200R2	145	193	22000	*6570 8.25/20		Her JXD	6-4x4 1/2	320		254	125-3200	Cla 205V	5	Tim H340	2H	6.16-6.46			
(D) D200R2	145	193	22000	*6990 8.25/20		Con TD6427	6-4 1/2x4 1/2	427		307	116-2400	Cla 290V	5	Tim H340	2H	6.16-6.46			
300R1	145	193	24000	*6875 9.00/20		Her JXLD	6-4x4 1/2	339		264	138-3200	Cla 205V	5	Tim L140	H	** -6.17			
(D) D300R1	145	193	24000	*7450 9.00/20		Cum JN6B	6-4 1/2x5	401		290	125-2500	Cla 290V	5	Tim L140	H	** -6.17			
300R2	145	193	24000	*6875 9.00/20		Her JXLD	6-4x4 1/2	339		264	138-3200	Cla 205V	5	Tim L340	2H	6.63-8.52			
(D) D300R2	145	193	24000	*7450 9.00/20		Cum JN6B	6-4 1/2x5	401		290	125-2500	Cla 290V	5	Tim L340	2H	6.63-8.52			
400R1	145	193	29000	*9372 10.00/20		Con T6427	6-4 1/2x4 1/2	427		356	179-3000	Cla 290V	5	Tim QT140	H	** -6.83			
(D) D400R1	145	193	29000	*9672 10.00/20		Cum JBS600	6-4 1/2x5	401		350	150-2500	Cla 290V	5	Tim QT140	H	** -6.83			
400R2	145	193	29000	*9602 10.00/20		Con T6427	6-4 1/2x4 1/2	427		356	179-3000	Cla 290V	5	QT340	2H	6.65-9.17			
(D) D400R2	145	193	29000	*9902 10.00/20		Cum JBS600	6-4 1/2x5	401		350	150-2500	Cla 290V	5	QT340	2H	6.65-9.17			
500R1	145	193	34000	*10080 11.00/22		Con U6501	6-4 1/2x5 1/2	501		413	178-2600	Fu SA65	5	RT40	H	** -6.83			
(D) D500R1	145	193	34000	*11240 11.00/22		Cum HRFB600	6-5 1/2x6	743		550	180-2000	Fu SA65	5	RT40	H	** -6.83			
500R2	145	193	34000	*10300 11.00/22		Con U6501	6-4 1/2x5 1/2	501		413	178-2600	Fu SA65	5	RT340	2H	6.31-8.39			
(D) D500R2	145	193	34000	*11395 11.00/22		Cum HRFB600	6-5 1/2x6	743		550	180-2000	Fu SA65	5	RT340	2H	6.31-8.39			
600R1	145	193	40000	*11321 11.00/22		Con R6602	6-4 1/2x5 1/2	602		484	232-2800	Fu SA65	5	Tim U200	2H	** -8.07			
(D) D600R1	145	193	40000	*11321 11.00/22		Cum R6602	6-4 1/2x5 1/2	602		484	232-2800	Fu SA65	5	Tim U200	2H	** -8.07			
600R2	145	193	40000	*11285 11.00/22		Con R6602	6-4 1/2x5 1/2	602		484	232-2800	Fu SA65	5	Tim U300	2H	6.42-8.38			
(D) D700R1	145	193	40000	*12545 11.00/22		Cum NHB600	6-5 1/2x6	743		535	210-2100	8051A	5	Tim U200	2H	** -7.20			
(D) D700R2	145	193	40000	*12690 11.00/22		Cum NHB600	6-5 1/2x6	743		535	210-2100	8051A	5	Tim U300	2H	6.42-8.38			
200R53	157	193	28000	*7825 8.25/20		Her JXD	6-4x4 1/2	320		254	125-3200	Cla 205V	5	SDHD	H	** -7.20			
(D) D200R53	157	193	28000	*8075 8.25/20		Con TD6427	6-4 1/2x4 1/2	427		307	116-2400	Cla 290V	5	SDHD	H	** -7.20			
200R54	157	193	28000	*7825 8.25/20		Her JXD	6-4x4 1/2	320		254	125-3200	Cla 205V	5	SDHD	H	** -7.20			
(D) D200R54	157	193	28000	*8059 9.00/20		Con TD6427	6-4 1/2x4 1/2	427		307	116-2400	Cla 290V	5	SDHD	H	** -7.20			
300R53	157	193	34000	*8059 9.00/20		Her JXLD	6-4x4 1/2	339		264	138-3200	Cla 205V	5	SFHD	H	** -7.20			
(D) D300R53	157	193	34000	*8634 9.00/20		Cum JN6B	6-4 1/2x5	401		290	125-2500	Cla 290V	5	SFHD	H	** -7.20			
300R54	157	193	34000	*8229 9.00/20		Her JXLD	6-4x4 1/2	339		264	138-3200	Cla 205V	5	SFHD	H	** -7.20			
(D) D300R54	157	193	34000	*8804 9.00/20		Cum JN6B	6-4 1/2x5	401		290	125-2500	Cla 290V	5	SFHD	H	** -7.20			
400R53	157																		



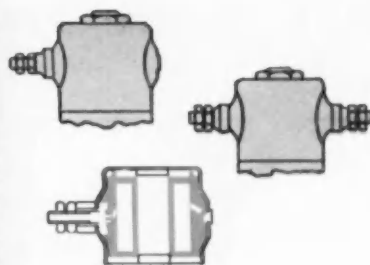
Automatic diesel governor control. To improve brake life and save fuel this motor grader uses a Skinner V5, three-way, normally open solenoid valve to relieve pressure in the hydraulic actuated engine governor. When the brakes are applied, the valve is energized by a pressure switch on the master cylinder causing the valve to close and bypass oil from the governor cylinder which reduces the pressure and throttles the engine.



Saddle tank operation. Energized by a standard dash-mounted toggle switch, a Skinner valve makes fuel level readings and tank switching a one-step, push-button operation. Valve reduces accident hazard by preventing driver's attention from being diverted; saves on labor and materials by eliminating fuel piping.



Propane and butane fuel cut-off. On trucks using liquid propane or butane fuel, Skinner V61 solenoid valves are used as a safety device to automatically shut off the tanks from the fuel system when the vehicle is not in operation. The valve is installed on the line ahead of the vaporizing unit and is energized by the ignition switch. Skinner valves for this application are approved by the Underwriters' Laboratories.



Skinner solenoid valves are available with single or double automotive terminals; specially designed automotive housings with potted coils (coil, housing leads and flux plate are potted with a compound to make them vibration-proof and moisture resistant); and waterproof molded coils that operate in all types of weather, under the severest conditions—even under water.



Additional features of Skinner automotive valves include: stainless steel internal parts; soft synthetic, long-lasting inserts that provide bubbletight sealing; spring-loaded plungers; mounting in any position; orifice seats with radius with well-rounded contact area and high finish for long insert life. All valves are built to the highest UL standards for the convenience and safety of the automotive industry.

Skinner solenoid valves help solve automotive problems like these

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1959 TRUCK SPECIFICATIONS

Continued from page 260

MAKE AND MODEL	WHEEL-BASE		Gross Vehicle Weight for Normal Service	Chassis Weight (See definition)	TIRE SIZES		ENGINE DETAILS				TRANSMISSION		REAR AXLE					
	Minimum Standard	Maximum Standard			Standard Front and Rear	Maximum Authorized Tire Size (Dual unless noted)	Make and Model	No. of Cyls., Bore and Stroke	Displacement	Comp. Ratio	Torque lb. ft.	Max. Brake H.P. at R.P.M. Given	Make and Model	Forward Speeds	Make and Model	Gear and Type	Drive and Torque	Gear Ratio Range in High
Ford—Cont'd	F-500	130 154	15000	*4515	7.22.5D	9.22.5	Ford EEJ	8-3 1/2 x 3 1/2	292	7.9	269	186-4000	WG T98A*	4	Tim D100	HF	H	5.83 *
	F-500	130 154	15000	*4515	7.22.5D	9.22.5	Ford EEK	8-3 1/2 x 3 1/2	292	7.6	270	187-3800	WG T98A*	4	Tim D100	HF	H	5.83 *
	F-500	130 192	*17000	4870	8.22.5D	10.22.5	Ford EBS	8-3 1/2 x 3 1/2	223	8.3	207	139-4200	WG T98A*	4	Tim F106	HF	H	6.8 *
	F-500	130 192	*17000	4870	8.22.5D	10.22.5	Ford EEJ	8-3 1/2 x 3 1/2	292	7.9	269	186-4000	WG T98A*	4	Tim F106	HF	H	6.2 *
	F-700	132 192	*21000	*5420	8.22.5D	10.22.5	Ford EEJ	8-3 1/2 x 3 1/2	292	7.9	269	186-4000	WG T98A*	4	Tim F106*	HF	H	** -7.2
	F-700	132 192	*21000	*5420	8.22.5D	10.22.5	Ford EEK	8-3 1/2 x 3 1/2	292	7.6	270	187-3800	WG T98A*	4	Tim F106*	HF	H	** -7.2
	F-750	132 192	22000	6009	8.22.5D	10.22.5	Ford ECS	8-3 1/2 x 3 1/2	302	7.6	299	186-3800	Cla 250V*	5	Eat 1614*	HF	H	** -7.17
	F-800	132 192	25000	6570	10.22.5D	11.22.5	Ford ECT	8-3 1/2 x 3 1/2	332	7.6	328	212-3800	Cla 265V*	5	Eat 1790*	SF	H	7.17 *
	F-850	132 192	25000	6915	10.22.5D	11.22.5	Ford EDL	8-4 1/2 x 3 1/2	401	7.5	350	226-3800	Spi 4652*	5	Eat 1790A*	SF	H	7.17 *
	F-850	132 192	26000	7955	10.22.5D	12.24.5	Ford EDL	8-4 1/2 x 3 1/2	401	7.5	350	226-3800	Spi 4652*	5	Eat 1892*	SF	H	6.50 *
	F-1000	132 192	30000	8400	11.22.5D	12.24.5	Ford EDM	8-4 1/2 x 3 1/2	477	7.5	430	260-3600	Spi 4652*	5	Eat 1893*	SF	H	6.50 *
	F-1100	132 192	30000	8560	11.22.5D	12.24.5	Ford EDN	8-4 1/2 x 3 1/2	534	7.5	490	277-3400	Spi 4652*	5	Eat 1911*	SF	H	6.67 *
	F-1100-OH	144 192	36000	9225	11.22.5D	12.24.5	Ford EDN	8-4 1/2 x 3 1/2	534	7.5	490	277-3400	Spi 4652	5	Tim U200*	HF	H	** -7.03
	C-850	99 153	26000	7955	10.22.5D	11.22.5	Ford EDL	8-4 1/2 x 3 1/2	401	7.5	350	226-3600	Spi 4652*	5	Eat 1790*	SF	H	7.17 *
	C-950	99 153	26000	8375	11.22.5D	12.24.5	Ford EDL	8-4 1/2 x 3 1/2	401	7.5	350	226-3600	Spi 4652*	5	Eat 1790*	SF	H	7.17 *
	C-1000	99 153	31000	8715	11.22.5D	12.24.5	Ford EDM	8-4 1/2 x 3 1/2	477	7.5	430	260-3600	Spi 4652*	5	Eat 1893*	SF	H	6.50 *
	C-1100	99 153	31000	8880	11.22.5D	12.24.5	Ford EDM	8-4 1/2 x 3 1/2	477	7.5	430	260-3600	Spi 4652*	5	Eat 1911*	SF	H	6.67 *
	C-1100-OH	111 153	36000	9195	11.22.5D	12.24.5	Ford EDN	8-4 1/2 x 3 1/2	534	7.5	490	277-3400	Spi 4652	5	Tim U200*	HF	H	** -7.03
	C-500	99 153	18000	*5330	7.22.5D	9.22.5	Ford EEJ	8-3 1/2 x 3 1/2	292	7.9	269	186-4000	WG T98A*	4	Tim D100	HF	H	5.83 *
	C-500	99 153	18000	*5330	7.22.5D	9.22.5	Ford EEK	8-3 1/2 x 3 1/2	292	7.6	270	187-3800	WG T98A*	4	Tim D100	HF	H	5.83 *
	C-600	99 153	19500	5615	8.22.5D	10.22.5	Ford EEJ	8-3 1/2 x 3 1/2	292	7.9	269	186-4000	WG T98A*	4	Tim F104*	HF	H	6.2 *
	C-600	99 153	19500	5615	8.22.5D	10.22.5	Ford EEK	8-3 1/2 x 3 1/2	292	7.6	270	187-3800	WG T98A*	4	Tim F104*	HF	H	6.2 *
	C-700	99 153	22000	6230	8.22.5D	10.22.5	Ford EEJ	8-3 1/2 x 3 1/2	292	7.9	269	186-4000	WG T98A*	4	Tim F106*	HF	H	** -7.2
	C-700	99 153	22000	6230	8.22.5D	10.22.5	Ford EEK	8-3 1/2 x 3 1/2	292	7.6	270	187-3800	WG T98A*	4	Tim F106*	HF	H	** -7.2
	C-750	99 153	23000	6890	8.22.5D	10.22.5	Ford ECS	8-3 1/2 x 3 1/2	302	7.6	299	196-3800	Cla 265V*	5	Eat 1614*	HF	H	** -7.17
	C-800	99 153	26000	7435	10.22.5D	11.22.5	Ford ECT	8-3 1/2 x 3 1/2	332	7.6	328	212-3800	Cla 265V*	5	Eat 1790*	SF	H	7.17 *
	B-500	154 154	15000	4250	7.22.5D	9.22.5	Ford EBS	8-3 1/2 x 3 1/2	223	8.3	207	139-4200	WG T98A*	4	Tim C100	HF	H	6.2 *
	B-500	154 154	15000	4250	7.22.5D	9.22.5	Ford EEJ	8-3 1/2 x 3 1/2	292	7.9	269	186-4000	WG T98A*	4	Tim D100*	HF	H	5.83 *
	B-500	154 154	15000	4250	7.22.5D	9.22.5	Ford EEK	8-3 1/2 x 3 1/2	292	7.6	270	187-3800	WG T98A*	4	Tim D100*	HF	H	5.83 *
	B-600	192 220	*17000	4800	8.22.5D	10.22.5	Ford EBS	8-3 1/2 x 3 1/2	223	8.3	207	139-4200	WG T98A*	4	Tim F106*	HF	H	6.8 *
B-600	192 220	*17000	4800	8.22.5D	10.22.5	Ford EEJ	8-3 1/2 x 3 1/2	292	7.9	269	186-4000	WG T98A*	4	Tim F106*	HF	H	6.2 *	
B-600	192 220	*17000	4800	8.22.5D	10.22.5	Ford EEK	8-3 1/2 x 3 1/2	292	7.6	270	187-3800	WG T98A*	4	Tim F106*	HF	H	6.2 *	
B-700	245 262	*21000	5695	8.22.5D	10.22.5	Ford EEJ	8-3 1/2 x 3 1/2	292	7.9	269	186-4000	WG T98A*	4	Tim F106*	HF	H	** -7.2	
B-700	245 262	*21000	5695	8.22.5D	10.22.5	Ford EEK	8-3 1/2 x 3 1/2	292	7.6	270	187-3800	WG T98A*	4	Tim F106*	HF	H	** -7.2	
B-750	245 262	*22000	6185	8.22.5D	10.22.5	Ford ECS	8-3 1/2 x 3 1/2	302	7.6	299	196-3800	Cla 250V*	5	Eat 1614*	HF	H	** -7.17	
P-350	104 122	8000	2440	7.17.5S	8.19.5S	Ford EBT	6-3 1/2 x 3 1/2	223	8.3	207	139-4200	Ford	3	Spi 60*	HF	H	** -4.88	
P-350	104 122	8000	2440	7.17.5S	8.19.5S	Ford EEJ	8-3 1/2 x 3 1/2	292	7.9	269	186-4000	Ford	3	Spi 60*	HF	H	4.56 *	
P-350	104 122	8000	2440	7.17.5S	8.19.5S	Ford EBT	6-3 1/2 x 3 1/2	223	8.3	207	139-4200	Ford	3	Tim B140	HF	H	5.14 *	
P-350	104 122	8000	2440	7.17.5S	8.19.5S	Ford EEJ	8-3 1/2 x 3 1/2	292	7.9	269	186-4000	Ford	3	Tim B140	HF	H	5.14 *	
P-400	137 137	10000	2695	8.17.5S	8.19.5S	Ford EBT	6-3 1/2 x 3 1/2	223	8.3	207	139-4200	Ford	3	Tim B140	HF	H	5.14 *	
P-400	137 137	10000	2695	8.17.5S	8.19.5S	Ford EEJ	8-3 1/2 x 3 1/2	292	7.9	269	186-4000	Ford	3	Tim B140	HF	H	5.14 *	
P-500	137 154	15000	3395	8.19.5S	8.19.5S	Ford EBT	6-3 1/2 x 3 1/2	223	8.3	207	139-4200	Ford	3	Tim C100	HF	H	6.2 *	
P-500	137 154	15000	3395	8.19.5S	8.19.5S	Ford EEJ	8-3 1/2 x 3 1/2	292	7.9	269	186-4000	Ford	3	Tim D100	HF	H	5.83 *	
P-500	137 154	15000	3395	8.19.5S	8.19.5S	Ford EBT	6-3 1/2 x 3 1/2	223	8.3	207	139-4200	Ford	3	Tim C100	HF	H	6.2 *	
P-500	137 154	15000	3395	8.19.5S	8.19.5S	Ford EEJ	8-3 1/2 x 3 1/2	292	7.9	269	186-4000	Ford	3	Tim D100	HF	H	5.83 *	
T-700	144 192	*28000	*7815	8.22.5D	10.22.5	Ford EEK	8-3 1/2 x 3 1/2	292	7.6	270	187-3800	Cla 250V	5	Eat 22M	SF	H	6.70 *	
T-700	144 192	*28000	*7815	8.22.5D	10.22.5	Ford ECS	8-3 1/2 x 3 1/2	302	7.6	299	196-3800	Cla 265V	5	Eat 22M	SF	H	7.79 *	
T-750	144 192	*32000	*7815	8.22.5D	10.22.5	Ford EEK	8-3 1/2 x 3 1/2	292	7.9	270	187-3800	Cla 250V	5	Eat 26M	SF	H	7.79 *	
T-750	144 192	*32000	*7815	8.22.5D	10.22.5	Ford ECS	8-3 1/2 x 3 1/2	302	7.6	299	196-3800	Cla 250V	5	Eat 26M	SF	H	7.79 *	
T-800	144 192	*37000	*9165	9.22.5D	11.22.5	Ford ECT	8-3 1/2 x 3 1/2	332	7.6	328	212-3800	Cla 265V	5	Eat 28M	SF	H	7.79 *	
T-800	144 192	*37000	*9165	9.22.5D	11.22.5	Ford ECT	8-3 1/2 x 3 1/2	332	7.6	328	212-3800	Cla 265V	5	Eat 34M	SF	H	8.60 *	
T-850	144 192	*43000	*9165	10.22.5D	11.22.5	Ford EDL	8-4 1/2 x 3 1/2	401	7.5	350	226-3600	Spi 4652*	5	Eat 28M	SF	H	7.79 *	
T-850	144 192	*43000	*9165	10.22.5D	11.22.5	Ford EDL	8-4 1/2 x 3 1/2	401	7.5	350	226-3600	Spi 4652*	5	Eat 34M	SF	H	8.60 *	
T-850	144 192	*43000	*9165	10.22.5D	11.22.5	Ford EDM	8-4 1/2 x 3 1/2	477	7.5	430	260-3600	Spi 4652*	5	Eat 34M	SF	H	7.80 *	
T-850	144 192	*43000	*9165	10.22.5D	11.22.5	Ford EDM	8-4 1/2 x 3 1/2	477	7.5	430	260-3600	Spi 4652*	5	Eat 34M	SF	H	7.80 *	
T-950	156 192	*46000	*11405	11.22.5D	12.24.5	Ford EDL	8-4 1/2 x 3 1/2	401	7.5	350	226-3600	Spi 4652*	5	Eat 38D	SF	H	8.38 *	
T-950	156 192	*46000	*11405	11.22.5D	12.24.5	Ford EDL	8-4 1/2 x 3 1/2	401	7.5	350	226-3600	Spi 4652*	5	Eat 38D	SF	H	8.38 *	
T-950	156 192	*46000	*11405	11.22.5D	12.24.5	Ford EDM	8-4 1/2 x 3 1/2	477	7.5	430	260-3600	Spi 4652*	5	Eat 38D	SF	H	8.38 *	
T-950	156 192	*46000	*11405	11.22.5D	12.24.5	Ford EDM	8-4 1/2 x 3 1/2	477	7.5	430	260-3600	Spi 4652*	5	Eat 38D	SF	H	8.38 *	
Kenworth (D)	4905		33000	10750	10.00 20	11.00 22	Cum JTB	6-4 1/2 x 5	401	16.0	350	186-2400	5A65AA	15	Tim R200	H2F	H	
(D)	4909		43000	12700	10.00 20	11.00 22	Cum JTB	6-4 1/2 x 5	401	16.0	350	186-2400	5A65AA	15	Tim R200+	H2F	H	
(D)	4909		45000	13900	10.00 20	11.00 22	Cum JTB	6-4 1/2 x 5	401	16.0	350	186-2400	5A65AA	15	Tim SQW	WF	H	
(D)	4921 153 1/4	255	33000	11800	10.00 20													

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1959 TRUCK SPECIFICATIONS

Continued from page 262

MAKE AND MODEL	WHEEL-BASE	Minimum Standard	Maximum Standard	Gross Vehicle Weight for Normal Service	TIRE SIZES		ENGINE DETAILS					TRANSMISSION		REAR AXLE					
					Standard Front and Rear	Maximum Authorized Gross Weight (See definition)	Dual rear S-single rear	Make and Model	No. of Cylinders, Bore and Stroke	Displacement	Comp. Ratio	Torque lb. ft.	Max. Brake H.P. at R.P.M. Given	Make and Model	Forward Speeds	Make and Model	Gear and Type	Drive and Torque	Gear Ratio Range in High
Reo	C-200	125	185	18500	*8355 8/22.5	10/22.5	Own OA1101	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	255	6.7	194	110-3400 WG T98A	4	Tim F140+	HF	H	6.2-7.2		
	C-201	125	185	18500	*8355 8/22.5	10/22.5	Own OA1102	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	255	6.7	194	110-3400 WG T98A	4	Tim F140+	HF	H	6.2-7.2		
	C-202	125	185	20500	*5575 8/22.5	10/22.5	Own OA1102	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	255	6.7	194	110-3400 WG T98A	4	Tim F140+	HF	H	6.2-7.2		
	C-203	125	185	18500	*8215 8/22.5	10/22.5	Own OA1102	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	255	6.7	194	110-3400 WG T98A	4	Tim F340	HFd	H	6.13-8.85		
	C-300	130	185	22000	*6295 10/22.5	11/22.5	Own OA1304	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	292	6.9	230	130-3300 Cla 205V	5	Tim H140+	HF	H	6.16-7.2		
	C-301	130	185	23000	*6295 10/22.5	11/22.5	Own OA1304	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	292	6.9	230	130-3300 Cla 205V	5	Tim H140+	HF	H	6.16-7.2		
	C-302	130	185	23000	*6330 10/22.5	11/22.5	Own OA1304	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	292	6.9	230	130-3300 Cla 205V	5	Tim H140+	HF	H	6.16-7.2		
	C-303	130	185	22000	*7095 10/22.5	11/22.5	Own OA1304	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	292	6.9	230	130-3300 Cla 205V	5	Tim H340	HFd	H	6.16-8.22		
	C-400	130	185	23500	*6580 10/22.5	11/24.5	Own OA145+	6-4 $\frac{1}{2}$ x4 $\frac{1}{2}$	331	6.7	270	145-3200 Cla 205V	5	Tim L140+	HF	H	6.16-7.2		
	C-401	130	185	25500	*6580 10/22.5	11/24.5	Own OA145+	6-4 $\frac{1}{2}$ x4 $\frac{1}{2}$	331	6.7	270	145-3200 Cla 205V	5	Tim L140+	HF	H	6.16-7.2		
	C-402	130	185	26000	*6880 10/22.5	11/24.5	Own OA145+	6-4 $\frac{1}{2}$ x4 $\frac{1}{2}$	331	6.7	270	145-3200 Cla 205V	5	Tim L140+	HF	H	6.16-7.2		
	C-403	130	185	23500	*7815 10/22.5	11/24.5	Own OA145+	6-4 $\frac{1}{2}$ x4 $\frac{1}{2}$	331	6.7	270	145-3200 Cla 205V	5	Tim L340	HFd	H	5.99-8.73		
	C-500	130	185	29000	*7715 11/22.5	12/22.5	Own OH170+	6-4 $\frac{1}{2}$ x4 $\frac{1}{2}$	331	7.5	297	170-3400 Spl 3152	5	Tim QT140+	HF	H	6.16-7.8		
	C-501	130	185	31000	*7715 11/22.5	12/22.5	Own OH170+	6-4 $\frac{1}{2}$ x4 $\frac{1}{2}$	331	7.5	297	170-3400 Spl 3152	5	Tim QT140+	HF	H	6.16-7.8		
	C-502	130	185	31000	*7785 11/22.5	12/22.5	Own OH170+	6-4 $\frac{1}{2}$ x4 $\frac{1}{2}$	331	7.5	297	170-3400 Spl 3152	5	Tim QT140+	HF	H	6.16-7.8		
	C-503	130	185	29000	*6580 10/22.5	12/22.5	Own OH170+	6-4 $\frac{1}{2}$ x4 $\frac{1}{2}$	331	7.5	297	170-3400 Spl 3152	5	Tim QT340+	HF	H	6.00-8.63		
	(c.o.e.) AC-403	108	28000	*8550 10/22.5	11/24.5	Own OA145+	6-4 $\frac{1}{2}$ x4 $\frac{1}{2}$	331	6.7	270	145-3200 Cla 205V	5	Tim L140+	HFd	H	5.99-8.73			
	(c.o.e.) AC-503	108	29000	*9150 11/22.5	12/22.5	Own OH170+	6-4 $\frac{1}{2}$ x4 $\frac{1}{2}$	331	7.5	297	170-3400 Spl 3152	5	Tim QT340	HFd	H	6.00-9.01			
	A-600	139	29000	*8530 11/22.5	12/24.5	Own OV207*	8-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	390	7.3	354	207-3400 Fu SA65	5	Tim QT140+	HF	H	5.28-7.8			
	A-601	139	31000	*8530 11/22.5	12/24.5	Own OV207*	8-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	390	7.3	354	207-3400 Fu SA65	5	Tim QT140+	HF	H	5.28-7.8			
	A-602	139	31000	*8545 11/22.5	12/24.5	Own OV207*	8-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	390	7.3	354	207-3400 Fu SA65	5	Tim QT140+	HF	H	5.28-7.8			
	A-603	133	29000	*8650 11/22.5	12/24.5	Own OV207*	8-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	390	7.3	354	207-3400 Fu SA65	5	Tim QT340	HFd	H	5.63-9.01			
	(D) AC-603D	139	31000	*8650 11/22.5	12/24.5	Own OV207*	8-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	390	7.3	354	207-3400 Fu SA65	5	Tim QT140	HF	H	5.28-7.8			
	(c.o.e.) AC-603	108	29000	*8535 11/22.5	12/24.5	Own OV207*	8-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	390	7.3	354	207-3400 Fu R46	8	Tim QT140+	HF	H	5.28-7.8			
	(D)(c.o.e.) AC-603D	108	29000	*10210 11/22.5	12/24.5	Cum JT-6-B	6-4 $\frac{1}{2}$ x5	401	16.0	412	175-2500 Fu R46	8	Tim QT140+	HF	H	4.62-6.83			
	A-607	151	26000	*8180 10/22.5	11/24.5	Own OV207*	8-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	390	7.3	354	207-3400 Fu SA65	5	Tim L140+	HF	H	6.16-7.2			
	A-700	139	31000	*8690 11/22.5	12/24.5	Own OV207*	8-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	390	7.3	354	207-3400 Fu SA65	5	Tim R140+	HF	H	5.28-7.4			
	A-701	139	33000	*8690 11/22.5	12/24.5	Own OV207*	8-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	390	7.3	354	207-3400 Fu SA65	5	Tim R140+	HF	H	5.28-7.4			
	A-702	139	33000	*8705 11/22.5	12/24.5	Own OV207*	8-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	390	7.3	354	207-3400 Fu SA65	5	Tim R140+	HF	H	5.28-7.4			
	A-703	133	29000	*8555 11/22.5	12/24.5	Own OV207*	8-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	390	7.3	354	207-3400 Fu SA65	5	Tim R140+	HF	H	5.28-7.4			
	(D) A-703D	139	31000	*9070 11/22.5	12/24.5	Cum JT-6-B	6-4 $\frac{1}{2}$ x5	401	16.0	412	175-2500 Fu SA650	5	Tim RT340	HF	H	4.89-7.56			
	(D) B-700D	158 $\frac{1}{2}$	31000	*10620 11/22.5	11/20.24	Cum NH180*	6-4 $\frac{1}{2}$ x6	672	15.5	504	180-2100 Spl 6453A	5	Tim R140	HF	R	4.11-6.83			
	(D) B-702D	158 $\frac{1}{2}$	33000	*10670 11/22.5	11/20.24	Cum NH180*	6-4 $\frac{1}{2}$ x6	672	15.5	504	180-2100 Spl 6453A	5	Tim R140	HF	R	4.11-6.83			
	(D) B-703D	158 $\frac{1}{2}$	31000	*11060 11/22.5	11/20.24	Cum NH180*	6-4 $\frac{1}{2}$ x6	672	15.5	504	180-2100 Spl 6453A	5	Tim R140	HF	R	4.11-6.83			
	(D)(c.o.e.) BCL-703D	122	33000	*12070 11/22.5	12/24.5	Cum NH180*	6-4 $\frac{1}{2}$ x6	672	15.5	504	180-2100 Spl 6453A	10	Eat 19503	SF	R	4.87-6.38			
	(c.o.e.) AC-703	108	31000	*8530 11/22.5	12/24.5	Own OV207*	8-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	390	7.3	354	207-3400 Fu R46	8	Tim R140+	HF	H	5.28-7.40			
	(D)(c.o.e.) AC-703D	108	31000	*10505 10/22.5	12/24.5	Cum JT-6-B	6-4 $\frac{1}{2}$ x5	401	16.0	412	175-2500 Fu R46	8	Tim R140+	HF	H	4.89-7.56			
	(Sch. Bus.) C-270L	167	187	19500	*5870 8/22.5	10/22.5	Own OA110	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	255	6.7	194	110-3400 WG T98A	4	Tim F140+	HF	H	6.8-7.2		
	(Sch. Bus.) C-270G	219	219	20500	*6200 9/22.5	10/22.5	Own OA110	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	255	6.7	194	110-3400 WG T98A	4	Tim F140+	HF	H	6.8-7.2		
	(Sch. Bus.) C-270H	238	238	20500	*6335 9/22.5	10/22.5	Own OA110	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	255	6.7	194	110-3400 WG T98A	4	Tim F140+	HF	H	6.8-7.2		
	(Sch. Bus.) C-270J	256	256	20500	*6450 9/22.5	10/22.5	Own OA110	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	255	6.7	194	110-3400 WG T98A	4	Tim F140+	HF	H	6.8-7.2		
	(Sch. Bus.) C-370H	238	238	22000	*6730 9/22.5	11/22.5	Own OA130	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	292	6.9	230	130-3300 Cla 205	5	Tim H140+	HF	H	6.8-7.2		
	(Sch. Bus.) C-370J	256	256	22000	*6845 9/22.5	11/22.5	Own OA130	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	292	6.9	230	130-3300 Cla 205	5	Tim H140+	HF	H	6.8-7.2		
	(Sch. Bus.) C-470H	238	238	23500	*6965 10/22.5	11/22.5	Own OA130	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	292	6.9	230	130-3300 Cla 205V	5	Tim L140+	HF	H	6.83-7.2		
	(Sch. Bus.) C-470J	256	256	23500	*6965 10/22.5	11/22.5	Own OA130	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	292	6.9	230	130-3300 Cla 205V	5	Tim L140+	HF	H	6.83-7.2		
	(Sch. Bus.) A-375	168	208	26000	*7105 11/22.5	11/22.5	Own OA145	6-4 $\frac{1}{2}$ x4 $\frac{1}{2}$	331	6.7	270	145-3400 Cla 205V	5	Tim H140+	HF	H	6.8-7.2		
	(Sch. Bus.) A-375	168	208	26000	*7240 11/22.5	11/22.5	Own OA145	6-4 $\frac{1}{2}$ x4 $\frac{1}{2}$	331	6.7	270	145-3400 Cla 205V	5	Tim L140+	HF	H	6.8-7.2		
Studebaker	4E1	112	122	5000	2070 6.00/165	6.50/165	Own 1E	6-3x4	170	8.0	133	75-3600 WG T98B	3	Spl. 2211	H $\frac{1}{2}$	H	4.27-4.55		
	4E2	112	122	5000	2380 6.00/165	6.50/165	Own 3E	8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	259	7.5	225	141-3800 WG T98C	3	Spl. 2211	H $\frac{1}{2}$	H	3.73-4.55		
	4E3	112	122	5000	2290 6.00/165	6.50/165	Own 4E	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	246	7.5	196	94-3200 WG T98B	3	Spl. 2211	H $\frac{1}{2}$	H	4.09-4.55		
	4E5	112	122	5000	2070 7.10/155	6.50/165	Own 1E	6-3x4	170	8.0	133	75-3600 WG T98B	3	Spl. 2211	H $\frac{1}{2}$	H	4.27-4.55		
	4E6	112	122	5200	2290 7.10/155	6.50/165	Own 4E	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	246	7.5	196	94-3200 WG T98B	3	Spl. 2211	H $\frac{1}{2}$	H	4.09-4.55		
	4E7	112	122	5200	2380 7.10/155	6.50/165	Own 3E	8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	259	7.5	225	141-3800 WG T98C	3	Spl. 2211	H $\frac{1}{2}$	H	3.73-4.55		
	4E11	112	122	7000	2535 7.00/165	7.50/175	Own 4E	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	246	7.5	196	94-3200 WG T98B	3	Spl. 60	HF	H	4.10-4.88		
	4E12	112	122	7000	2625 7.00/165	7.50/175	Own 3E	8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	259	7.5	225	141-3800 WG T98C	3	Spl. 60	HF	H	4.10-4.88		
	4E13	131	131	10000	3140 7.00/175	7.50/16	Own 3E	8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	259	7.5	225	141-3800 WG T98A	4	Tim B100	HF	H	4.06-5.14		
	4E14	131	131	10000	3050 7.00/175	7.50/16	Own 4E	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	246	7.5	196	94-3200 WG T98A	4	Tim B100	HF	H	4.15-4.83		
4E16	131	171	15000	3635 8/19.5D	9.00/20	Own													

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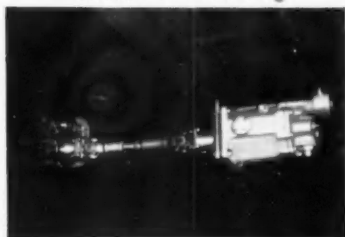
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MAKE AND MODEL	WHEEL-BASE		TIRE SIZES		ENGINE DETAILS				TRANSMISSION		REAR AXLE							
	Minimum Standard	Maximum Standard	Gross Vehicle Weight for Normal Service	Chassis Weight (See definition)	Standard Front and Rear	Maximum Authorized Tire Size (Duals unless noted)	Make and Model	No. of Cylinders, Bore and Stroke	Displacement	Comp. Ratio	Torque lb. ft.	Max. Brake H.P. at R.P.M. Given	Make and Model	Forward Speeds	Make and Model	Gear and Type	Drive and Torque	Gear Ratio Range in High
Four-Wheel Drive—Cont'd																		
Fabco—Cont'd																		
(c)	FD201C	131	173	19000	6000 6.2/2.5	10/22.5	GMC	6-3 1/2 x 3 1/2	347	7.0	317	206-4400	GMC*	8	GMC	Hyf	H	** -6.17
(c)	FD251D	154	172	20000	6500 6.2/2.5	10/22.5	Int	6-3 1/2 x 3 1/2	269	6.5	227	103-2800	Int*	10	Tim F105	HF	H	** -6.00
(c)	FD302B	132	192	26000	8000 10.00/20	11/22.5	Ford	6-3 1/2 x 3 1/2	332	7.6	328	212-3800	Ford*	10	Eat 1790	SF	H	** -7.17
Federal	200R44	146	193	22000	*7065 8.25/20		Her JXD	6-4 x 4 1/2	320		254	125-3200	Cla 205V	5	Tim H140	H	H	** -6.17
(D)	D200R44	146	193	22000	*7485 8.25/20		Con TD6427	6-4 1/2 x 5 1/2	427		307	116-2400	Cla 290V	5	Tim H140	H	H	** -6.17
	300R44	145	193	24000	*7370 9.00/20		Her JXL	6-4 1/2 x 5 1/2	339		264	138-3000	Cla 205V	5	Tim L140	H	H	** -6.17
(D)	D300R44	145	193	24000	*7945 9.00/20		Cum JN68	6-4 1/2 x 5	401		290	125-2500	Cla 290V	5	Tim L140	H	H	** -6.17
	400R44	145	193	29000	*10802 10.00/20		Con T6427	6-4 1/2 x 5 1/2	427		356	179-3000	Cla 290V	5	Tim QT140	H	H	** -7.20
(D)	D400R44	145	193	29000	*10872 10.00/20		Cum JB5600	6-4 1/2 x 5	401		350	150-2500	Cla 290V	5	Tim QT140	H	H	** -7.20
	500R44	145	193	34000	*11280 11.00/22		Cum U6501	6-4 1/2 x 5 1/2	501		413	178-2600	Fu 5A65	5	Tim R140	H	H	** -7.20
(D)	D500R44	145	193	34000	*12440 11.00/22		Cum HRF8600	6-5 1/2 x 6	743		550	180-2000	Fu 5A65	5	Tim R140	H	H	** -7.20
	600R44	145	193	40000	*12332 11.00/22		Con R6602	6-4 1/2 x 5 1/2	602		484	232-2800	Fu 5A65	5	Tim U200	H2	H	** -7.20
(D)	D700R44	145	193	40000	*13890 11.00/22		Cum NHB600	6-5 1/2 x 6	743		535	210-2100	8551A	5	Tim U200	H2	H	** -7.20
Ford	F-100 (4x4)	118	118	5800	3485 6.70/15.5	7/17.55	Ford EBR	6-3 1/2 x 3 1/2	223	8.3	207	139-4200	Ford*	3	Ford 3300	H1	H	** -3.89
	F-250 (4x4)	118	118	5800	3485 6.70/15.5	7/17.55	Ford EEH	6-3 1/2 x 3 1/2	292	7.9	269	186-4000	Ford*	3	Ford 3300	H1	H	** -3.89
	F-250 (4x4)	118	118	7400	3690 6.50/16.5	8/19.55	Ford EBR	6-3 1/2 x 3 1/2	223	8.3	207	139-4200	Ford*	3	Spi 80	HF	H	** -4.56
	F-250 (4x4)	118	118	7400	3690 6.50/16.5	8/19.55	Ford EEH	6-3 1/2 x 3 1/2	292	7.9	269	186-4000	Ford*	3	Spi 80	HF	H	** -4.56
FWD	*170	142	215	17000	7200 7.50/20	10.00/20.5	Int BD240	6-3 1/2 x 4 1/2	241	7.5	224	141-3800	WG T9	4	Own 23L	SF	H	4.86 6.98
	*191	142	215	20000	7620 8.25/20	10.00/20.5	Int BD264	6-3 1/2 x 4 1/2	264	7.5	248	153-3800	Int T31	5	Own 23L	SF	H	4.86 6.98
	*192	142	215	20000	7680 8.25/20	10.00/20.5	Int BD308	6-3 1/2 x 4 1/2	308	6.5	286	154-3800	Int T31	5	Own 23L	SF	H	4.86 6.98
(D)	*286	142	202	28000	8890 10.00/20	11.00/20	Int RD450	6-4 1/2 x 5	451	6.5	388	182-3000	Int T62	5	Own 23	SF	H	4.86 6.98
	*325D	142	231	32000	11990 11.00/20	13.00/20.5	Cum JT68	6-4 1/2 x 5	401	16.3	407	175-2500	Ful 5C65	5	Own 33A	SF	H	4.18 12.2
(D)	*332	142	202	23000	8100 9.00/20	10.00/20	Int BD308	6-3 1/2 x 4 1/2	308	6.5	286	154-3800	Int T31	5	Own 33A	SF	H	4.18 12.2
(D)	*233D	142	202	23000	9000 9.00/20	10.00/20	GMC 3-71	3-4 1/2 x 5	213	16.0	277	102-2100	Ful 5A430	5	Own 23	SF	H	4.86 6.98
	*284	142	202	28000	8850 10.00/20	11.00/20	Int RD372	6-4 1/2 x 4 1/2	372	6.5	308	165-3200	Int T51	5	Own 23	SF	H	4.86 6.98
(D)	*284D	142	202	28000	9800 10.00/20	11.00/20	GMC 4-71	4-4 1/2 x 5	284	17.0	375	150-2300	Ful 5C650	5	Own 23	SF	H	4.86 6.98
	*285	142	202	28000	8860 10.00/20	11.00/20	Int RD406	6-4 1/2 x 4 1/2	406	6.5	338	175-3200	Int T51	5	Own 23	SF	H	4.86 6.98
(D)	*285D	142	202	28000	9750 10.00/20	11.00/20	Cum JT68	6-4 1/2 x 5	401	16.3	407	175-2500	Ful 5C650	5	Own 23	SF	H	4.86 6.98
	*326	142	231	32000	11405 11.00/20	13.00/20.5	Int RD450	6-4 1/2 x 5	451	6.5	388	182-3000	Int T62	5	Own 33A	SF	H	4.18 12.2
(D)	*324D	142	231	32000	12150 11.00/20	13.00/20.5	GMC 4-71	6-4 1/2 x 5	284	17.0	375	150-2300	Ful 5C650	5	Own 33A	SF	H	4.18 12.2
(D)	*327D	142	231	32000	12930 11.00/20	13.00/20.5	Cum HRF68	6-5 1/2 x 6	743	15.5	550	175-1800	Ful 5C720	5	Own 33A	SF	H	4.18 12.2
	*367	142	231	36000	11600 11.00/20	13.00/20.5	Int RD501	6-4 1/2 x 5 1/2	501	6.5	444	212-3000	Int T72	5	Own 33	SF	H	4.85 14.1
(D)	*368D	142	211	36000	13100 11.00/20	13.00/20.5	Cum HRF68	6-5 1/2 x 6	743	15.5	580	190-2000	Ful 5C720	5	Own 33	SF	H	4.85 14.1
	408	142	211	40000	13900 12.00/20	14.00/20.5	Wau 145GK	6-5 1/2 x 6	779	6.2	595	216-2000	Ful 10A1120	10	Own 33	SF	H	5.71 8.53
(D)	409	142	211	40000	13970 12.00/20	14.00/20.5	Wau 145GKB	6-5 1/2 x 6	779	6.2	595	240-2400	Ful 10A1120	10	Own 33	SF	H	5.71 8.53
	409D	142	211	40000	14630 12.00/20	14.00/20.5	GMC 6-71	6-4 1/2 x 6	426	16.0	570	227-2250	Ful 10A1120	10	Own 33	SF	H	5.71 8.53
(D)	409D	142	211	40000	14600 12.00/20	14.00/20.5	Cum NH220	6-5 1/2 x 6	743	15.5	607	220-2100	Ful 10A1120	10	Own 33	SF	H	5.71 8.53
	*327	142	231	32000	11450 11.00/20	13.00/20.5	Int RD501	6-4 1/2 x 5 1/2	501	6.5	444	212-3000	Int T72	5	Own 33A	SF	H	4.18 12.2
Marmon-Herrington	104	110	118	5600	*3300 6.50/16.5	6.50/16.5	Ford	6-3 1/2 x 3 1/2	223	8.3	207	139-4200	War T98A*	4	Ford	H1	H	** -3.70
	104	110	118	5600	*3425 6.50/16.5	6.50/16.5	Ford	6-3 1/2 x 3 1/2	292	7.9	269	186-4000	War T98A*	4	Ford	H1	H	** -3.70
	504	130	154	17000	*4864 7.22/5D	8.22/5	Ford	6-3 1/2 x 3 1/2	223	8.3	207	139-4200	War T98A	4	Tim D100	HF	H	** -5.63
	504	130	154	17000	*4969 7.22/5D	8.22/5	Ford	6-3 1/2 x 3 1/2	292	7.9	269	186-4000	War T98A	4	Tim D100	HF	H	** -5.63
	604	130	192	21000	*5339 8.22/5D	10.22/5	Ford	6-3 1/2 x 3 1/2	223	8.3	207	139-4200	War T98A	4	Tim F106	HF	H	** -6.80
	604	130	192	21000	*5464 8.22/5D	10.22/5	Ford	6-3 1/2 x 3 1/2	292	7.9	269	186-4000	War T98A	4	Tim F106	HF	H	** -6.80
	704	132	192	22500	*6753 9.22/5D	10.22/5	Ford	6-3 1/2 x 3 1/2	292	7.9	269	186-4000	War T98A	4	Tim F106	HF	H	** -6.80
	704	132	192	22500	*6753 9.22/5D	10.22/5	Ford	6-3 1/2 x 3 1/2	292	7.9	269	186-4000	War T98A	4	Eat 1614	HF	H	** -7.17
	754	132	192	24000	*7063 9.22/5D	11.22/5	Ford	6-3 1/2 x 3 1/2	332	7.6	328	212-3800	Cla 258V	5	Eat 1614	HF	H	** -7.17
	804	132	192	26000	*7812 10.22/5D	11.22/5	Ford	6-3 1/2 x 3 1/2	332	7.6	328	212-3800	Cla 264V0	5	Eat 1790A	HF	H	** -7.17
	854	132	192	27000	*8157 10.22/5D	11.22/5	Ford	6-4 1/2 x 3 1/2	401	7.5	350	226-3800	Spi 4652	5	Eat 1790A	HF	H	** -7.17
	C704	135	153	22500	*6970 9.22/5D	10.22/5	Ford	6-3 1/2 x 3 1/2	292	7.9	269	186-4000	War T98A	4	Eat 1614	HF	H	** -7.17
	C704	135	153	22500	*6985 9.22/5D	10.22/5	Ford	6-3 1/2 x 3 1/2	292	7.6	270	187-3800	War T98A	4	Eat 1614	HF	H	** -7.17
	C754	135	153	24000	*7513 9.22/5D	10.22/5	Ford	6-3 1/2 x 3 1/2	302	7.6	299	196-3800	Cla 265V	5	Eat 1614	HF	H	** -7.17
	C804	135	153	26000	*7802 10.22/5D	11.22/5	Ford	6-3 1/2 x 3 1/2	332	7.6	328	212-3800	Cla 264V0	5	Eat 1790A	HF	H	** -7.17
	C854	135	153	27000	*8435 10.22/5D	11.22/5	Ford	6-4 1/2 x 3 1/2	401	7.5	350	226-3800	Spi 4652	5	Eat 1790A	HF	H	** -7.17
Oshkosh	W-216	152	23600	8915 10.22/5			Int RD406	6-4 1/2 x 4 1/2	406		338	175-3200	Own MT216	5	Own R216	SF		
	W-314	152	28000	9950 10.00/20			Con B6427	6-4 1/2 x 4 1/2	427		328	137-2600	Own MT314	5	Own R314	SF		
(D)	W-316	152	28000	9310 10.22/5			Int RD406	6-4 1/2 x 4 1/2	406		338	175-3200	Own MT316	5	Own R316	SF		
	W-316-D	152	28000	9520 10.22/5			Cum JN68	6-4 1/2 x 5	401		295	130-2500	Own MT316	5	Own R316	SF		
(D)	W-416	152	30000	10960 11.22/5			Int RD406	6-4 1/2 x 4 1/2	4060									

MORE payload, less maintenance with Sundstrand truck refrigeration drives!



Choice of Mountings



Power Take-Off



Over Engine



New freedom from worry about truck refrigeration will be yours when you shift to Sundstrand constant speed drives. You'll be able to add to your payload and cut maintenance costs, too, with this system that is endorsed by maintenance men, truck fleet operators, and drivers alike.

Mounting choices are shown at the left. Each has its boosters among operators of refrigerated trucks. Both use the Sundstrand variable speed, constant volume hydraulic pump; a small oil reservoir, including filter; and the hydraulic motor that drives the refrigeration compressor at a constant speed of 1800 rpm.

Power Take-Off Mounting

Universal bracket for PTO mountings simplifies installation on all makes of trucks. Either medium or heavy units,

which limit maximum pump speed to 3000 rpm and provide rotation in same direction as engine crankshaft, may be used.

Over-Engine Mounting

Kits are available for over-engine mounting, with the ultimate choice of type depending on available space and related factors. Crankshaft sheave drives the hydraulic pump through belts in this type of mounting.

Maintenance, formerly a headache, is virtually eliminated on a properly installed Sundstrand hydraulic truck refrigeration drive. Simple standby operation is another plus since no declutching is required, plugging in the standby motor to an electrical power source does the job. Get more details about Sundstrand constant speed truck refrigeration drives in Bulletin 5002. Write for your copy today.



SUNDSTRAND HYDRAULIC DIVISION

SUNDSTRAND MACHINE TOOL CO., ROCKFORD, ILLINOIS, U. S. A.

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1959 TRUCK SPECIFICATIONS

Continued from page 266

MAKE AND MODEL	WHEEL-BASE		Gross Vehicle Weight for Normal Service	Chassis Weight See definition	TIRE SIZES		ENGINE DETAILS					TRANSMISSION		REAR AXLE				
	Minimum Standard	Maximum Standard			Standard Front and Rear	Maximum Authorized Tire Size Duals unless noted	Make and Model	No. of Cylinders, Bore and Stroke	Displacement	Comp. Ratio	Torque lb. ft.	Max. Brake H.P. at R.P.M. Given	Make and Model	Forward Speeds	Make and Model	Gear and Type	Drive and Torque	Gear Ratio Range in High
Four-Wheel Drive—Cont'd																		
Oshkosh—Cont'd																		
(D) WA-1600	236		65000	23200	11.00 24		Cum NH2206	6-5 1/2 x 6	743		606	220-2100	Ow N MT1600	12	Tim SFD4600P	2F		
50-50	122		36000	10600	10.00 20		Con B6427	6-4 1/2 x 7 1/2	427		328	137-2600	Ow N MT50	5	Ow N R50	SF		
45-55	122		42000	11900	11.00 24		Con T6427	6-4 1/2 x 7 1/2	427		342	189	Ow N MT55	10	Ow N R55	2F		
(D) 45-55-JT	122		42000	12800	11.00 24		Cum JT68	6-4 1/2 x 5	401		407	175-2500	Ow N MT55	10	Ow N R55	2F		
18-34	156		52000	14700	10.22 5 1/2		Int RD501	6-4 1/2 x 5 1/2	501		447	212-3000	Ow N MT18	10	Tim SLDD	2F		
18-38	156		56000	15600	11.22 5 1/2		Int RD501	6-4 1/2 x 5 1/2	501		444	212-3000	Ow N MT18	10	Tim SDD	2F		
(D) W-2100-M	160		42000	16000	13.00 20		Cum HRF68	6-5 1/2 x 6	743		580	190-2000	Ow N MT2100	12	Ow N R2100	2F		
W-2200-M	160		62000	21000	14.00 24		HS 6182B1	6-5 1/2 x 7	1091		1070	356-2200	Ow N MT2206	10	Ow N R2206M	2F		
(D) W-2200-M	160		62000	21500	14.00 24		Cum NHRS68	6-5 1/2 x 6	743		865	320-2100	Ow N MT2209	10	Ow N R2209M	2F		
(D) W-2500			90000	31500	16.00 25		Cum NHRS68	6-5 1/2 x 6	743		865	320-2100	Alt TG602	3	Ow N R2500	2F		
W-2901			90000	31500	16.00 25		HS 6182R1	6-5 1/2 x 7	1091		1070	356-2200	Alt TG602	3	Ow N R2500	2F		
(D) W-2800			120000		18.00 25		Cum NHRS68	6-5 1/2 x 6	743		865	320-2100	Alt TG602	3	Ow N R2800	PF		
W-2901			120000		18.00 25		HS 6182B1	6-5 1/2 x 7	1091		1070	356-2200	Alt TG602	3	Ow N R2800	PF		
Studebaker																		
4E2D	112	122	5400	2875	6.00 16S	6.50 16S	Ow N 3E	8-3 1/2 x 3 1/2	259	7.5	225	141-3800	WG T98A	4	Spl 2211	H 1/2	** 4.89	
4E3D	112	122	5400	2800	6.00 16S	6.50 16S	Ow N 4E	8-3 1/2 x 4 1/2	246	7.5	196	94-3200	WG T98A	4	Spl 2211	H 1/2	** 4.89	
4E6D	112	122	5400	2800	7.10 15S	6.50 16S	Ow N 4E	8-3 1/2 x 4 1/2	246	7.5	196	94-3200	WG T98A	4	Spl 2211	H 1/2	** 4.89	
4E7D	112	122	5400	2875	7.10 15S	6.50 16S	Ow N 3E	8-3 1/2 x 3 1/2	259	7.5	225	141-3800	WG T98A	4	Spl 2211	H 1/2	** 4.89	
4E11D	112	122	7400	2985	7.00 16S	7.50 17S	Ow N 4E	8-3 1/2 x 4 1/2	246	7.5	196	94-3200	WG T98A	4	Spl 60	HF	** 4.88	
4E12D	112	122	7400	3070	7.00 16S	7.50 17S	Ow N 3E	8-3 1/2 x 3 1/2	259	7.5	225	141-3800	WG T98A	4	Spl 60	HF	** 4.88	
4E13D	131	131	9400	3635	7.00 17S	7.50 16	Ow N 3E	8-3 1/2 x 3 1/2	259	7.5	225	141-3800	WG T98A	4	Tim B100	HF	** 5.14	
4E14D	131	131	9400	3550	7.00 17S	7.50 16	Ow N 4E	8-3 1/2 x 4 1/2	246	7.5	196	94-3200	WG T98A	4	Tim B100	HF	** 5.14	
Walter (c.f.)																		
F2M	128	150	24000	9000	12.00 20S		Wau MZA	6-4 1/2 x 4 1/2	404	5.6	290	125-2600	Ow N FJN	6	Ow N MS	2	H	** 8.00
(c.f.) AEB	128	150	36000	13000	12.00 24S		Wau 140GZ	6-4 1/2 x 5 1/2	554	6.2	440	165-2250	Ow N FC	6	Ow N FCC	2	H	** 9.00
(c.f.) AGB	138	162	36000	14000	12.00 24S		Wau 145GKB	6-5 1/2 x 6	779	6.2	585	240-2400	Ow N FA	6	Ow N FCC	2	H	** 9.00
(c.f.) AGR	138	162	42000	15000	12.00 24D		Wau 145GKB	6-5 1/2 x 6	779	6.2	585	240-2400	Ow N FA	6	Ow N FCR	2	H	** 9.00
Ward La France																		
FD1			35000	*11500	11.00 22	11.00 22	Cont 6513	6-4 1/2 x 5 1/2	513	5.9	405	180-2800	Ful 5A620	5	Tim R462W	S2	R	** 8.15
(D) FD2			35000	*12000	11.00 24	11.00 24	Cum H8600	6-5 1/2 x 6	672	17.0	500	150-1800	Ful 5A920	5	Tim R462W	S2	R	** 8.15
Willis																		
F4-134-4x4	104 1/2	104 1/2	4500	1985	7.00 15S	7.00 15S	Ow N	4-3 1/2 x 4 1/2	134	6.9	114	72-4000	WG T90C	3	Spl 44	H 1/2	** 5.38	
F4-134-4x2	104 1/2	104 1/2	4500	1836	6.70 15S	6.70 15S	Ow N	4-3 1/2 x 4 1/2	134	7.4	114	75-4000	WG T96*	3	Spl 44	H 1/2	** 4.89	
F4-134-4WD	118	118	6000	2151	7.00 16S	7.00 16S	Ow N	4-3 1/2 x 4 1/2	134	6.9	114	72-4000	WG T90C	3	Spl 53-2	H 1/2	** 5.38	
L6-226-4x4	104 1/2	104 1/2	4500	2102	7.00 15S	7.00 15S	Ow N	6-3 1/2 x 4 1/2	226	6.9	190	105-3600	WG T90J	3	Spl 44	H 1/2	** 4.27	
L6-226-4x2	104 1/2	104 1/2	4500	1953	6.70 15S	6.70 15S	Ow N	6-3 1/2 x 4 1/2	226	6.9	190	105-3600	WG T96*	3	Spl 44	H 1/2	4.27-4.89	
L6-226-4WD	118	118	6000	2267	7.00 16S	7.00 16S	Ow N	6-3 1/2 x 4 1/2	226	6.9	190	105-3600	WG T90J	3	Spl 53	H 1/2	** 4.88	
CJ-3B	80 1/2	80 1/2	3500	1726	6.00 16S	6.00 16S	Ow N	4-3 1/2 x 4 1/2	134	6.9	114	72-4000	WG T90C	3	Spl 44-2	H 1/2	** 5.38	
CJ-5	81	81	3750	1756	6.00 16S	6.00 16S	Ow N	4-3 1/2 x 4 1/2	134	6.9	114	72-4000	WG T90C	3	Spl 44-2	H 1/2	** 5.38	
CJ-6	101	101	3900	1805	6.00 16S	6.00 16S	Ow N	4-3 1/2 x 4 1/2	134	6.9	114	72-4000	WG T90C	3	Spl 44-2	H 1/2	** 5.38	
DJ-3A	80 1/2	80 1/2	2600	1352	6.40 15S	6.40 15S	Ow N	4-3 1/2 x 4 1/2	134	6.5	105	60-4000	WG T96	3	Spl 23	H 1/2	** 4.56	
FC-150	81	81	5000	2206	7.00 15S	7.00 15S	Ow N	4-3 1/2 x 4 1/2	134	6.9	114	72-4000	WG T90A	3	Spl 44-1	H 1/2	** 5.38	
FC-170	103 1/2	103 1/2	7000	2327	7.00 16S	7.00 16S	Ow N	6-3 1/2 x 4 1/2	226	6.9	190	105-3600	WG T90A	3	Spl 53	H 1/2	** 4.88	
Six-Wheelers																		
Diamond T																		
723JT	133	211	29500	9800	9.00 20	11.00 20	Cum JT68	6-4 1/2 x 5	401		405	175-2500	Fu 5A650	5	Eat 18803			
(D) 723CJT	111	189	29500	9450	9.00 20	11.00 20	Cum JT68	6-4 1/2 x 5	401		405	175-2500	Fu 5A650	5	Eat 18803			
831	145	211	30000	9300	10.00 20	11.00 22	HS 590	6-5 x 5	590		501	239-2800	Spl 6452	5	Eat 18803	S	Opt	
(D) 921R	145	211	31500	11700	9.00 20D	11.00 22	Cum HRF6	6-5 1/2 x 6	743		579	190-2000	Fu 10B1120	10	Tim R140P			
(D) 921R	145	211	31500	11800	9.00 20D	11.00 22	Cum NH220	6-5 1/2 x 6	743		604	220-2100	Fu 10B1120	10	Tim R140P			
(D) 921CR	114	190	31500	11500	10.00 20D	11.00 20	Cum HRF6	6-5 1/2 x 6	743		579	190-2000	Fu 5C720	5	Eat 1911			
(D) 921CN	114	190	31500	11600	10.00 20D	11.00 20	Cum NH220	6-5 1/2 x 6	743		604	220-2100	Fu 5C720	5	Eat 1911			
(D) 923	133	213	30000	10500	10.00 20	11.00 24	Cum NH180	6-4 1/2 x 6	672		504	180-2100	Fu 5A650	5	Eat 18803	S		
(D) 923C	114	190	30000	10000	10.00 20		Cum NH180	6-4 1/2 x 6	672		504	180-2100	Spl 6453A	5	Eat 18803			
(D) 921NT	133	213	31500	11300	10.00 20	11.00 24	Cum NTO6	6-5 1/2 x 6	743		698	262-...	Fu 10B1120	10	Tim R140P	Hy	Opt	
(D) 921CNT	114	190	31500	11300	10.00 20	11.00 20	Cum NTO6	6-5 1/2 x 6	743		698	262-...	Fu 10B1120	10	Tim R140P	Hy	Opt	
Dodge																		
T700	141	189	35000		8.22 5	10.22 5	Ow N	8-3 1/2 x 3 1/2	354	7.5	319	218-3900	Cla 265V	5	Tim SDHD	Hy	T	6.8-7.8
T800 HO	144	192	48000		9.22 5	11.22 5	Ow N	8-3 1/2 x 3 1/2	354	7.5	340	224-3900	Cla 265V	5	Tim SLHD	Hy	T	7.8-8.6
T900	144	192	48000		11.22 5	12.22 5	Ow N	8-3 1/2 x 3 1/2	354	7.5	360	234-3900	Cla 300	5	Tim SQHD	Hy	T	7.8-8.6
Duplex																		
TH6	162	220	30000	9180	8.25 20	9.00 20	Her JXD	6-4 x 4 1/2	320	6.2	240	113-3000	Fu 5B331	10	Tim SBD1055	BF	L	** 6.16
RH6	160	208	40000	11500	10.00 20	11.00 20	Con B6427	6-4 1/2 x 4 1/2	427	6.6	325	141-2600	Fu 5A43	5	Tim SD3010	2F	R	8.27-
L6	172	208	45000	15000	11.00 20	12.00 20	Cum H8600	6-5 1/2 x 6	672	17.0	495	150-1800	Fu 5A920	5	Tim SD454	SF2	L	6.8-8.15
Fabra (c)																		
FD201A	130	300	30000	10500	8.25 20	9.00 20	Chevrolet	8-3 1/2 x 3 1/2	261	7.2	220	135-4000	Chevrolet*	8	Chevrolet	HyF	H	** 6.17
(c) FD201B	130	300	30000	10500	8.25 20	9.00 20	Ford	8-3.5 x 3.1	239	7.5	215	132-4000	Ford*	10	Ford	HF	H	** 6.8
(c) FD201C	130	300	30000	10500	8.25 20	9.00 20	Ford	8-3.6 x 3.1	256	7.5	228	140-3000	Ford*	10	Ford	HF	H	** 6.8
(c) FD251B	130	300	40000	13000	8.25 20	9.00 20	Ford	8-3.8 x 3.5	317	7.2	286	170-3900	Ford*	10	Ford	SF	H	7.17-6.77
(c) FD201D	154	190	27000	8700	8.22 5	10.22 5	Int	8-3 1/2 x 4 1/2	282	6.5	251	137-3600	Int*	10	Eat	SF	H	** 6.70
WT	150	150	30000	10600	9.00 20	9.00 20	Ford	8-3.8 x 3.6	332	7.6	329	212-3800	Clark**	30	Tim F105	HF	R	-6.80
WT	150	150	30000	10600	9.00 20	9.00 20	GMC	6-4 x 4	302	7.5	268	180-3900	Clark**	30	Tim F105	HF	R	** 6.80
Federal																		
D200R6	157	193	28000	*8150	8.25 20		Her JXD	6-4 x 4 1/2	320		254	125-3200	Cla 205V	5	Tim SPHD	H	** 7.20	
(D) D200R6	157	193	28000	*8570	8.25 20		TD 6427	8-3 1/2 x 4 1/2	427		307	116-2400	Cla 290V	5	Tim SDHO	H	** 6.17	
300R6	157	193	34000	*8150	9.00 20		Her JXD	6-4 x 4 1/2	339		264	138-3200	Cla 205V	5	Tim SFHD	H	** 6.17	
(D) D300R6	157	193	34000	*8529	9.00 20		Cum JN68	6-4 1/2 x 5	401									



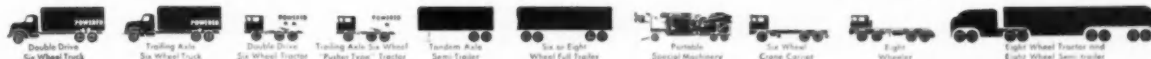
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On-time delivery of farm perishables, dairy products and general commodities to Midwest markets is a major factor in the rapid growth of Transport Motor Express, Inc., Fort Wayne, Indiana.

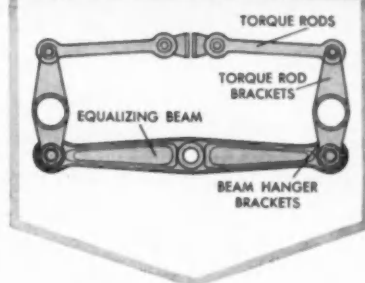
This growth—indicative of shippers' confidence in TME—represents a large equipment investment. Dale Keiser, General Manager of TME's Fort Wayne terminal, says, "We purchase equipment that will give us dependable performance at the lowest cost per mile. Maintenance re-

ports show that we save money with Hendrickson Tandem Suspensions. Downtime is eliminated, maintenance is reduced, parts inventories are cut and tire wear is greatly improved. For instance, our White Model WC-28TD Tractors, equipped with Hendrickson Series RT Steel Spring Tandems, have been in service for over eight years, averaging almost 125,000 miles a year. They're still going strong, and the Hendrickson Tandems have given us trouble-free service."

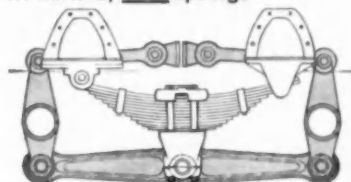
All Hendrickson Tandem Suspensions are interchangeable between trucks, tractors and trailers—and are also interchangeable between makes of axles. Parts inventories can be reduced! Fleet operators can specify the design best suited for each particular operation.



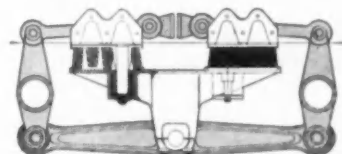
**STEEL, RUBBER
or AIR SPRINGS
in ONE BASIC
DESIGN!**



RT SERIES, steel springs

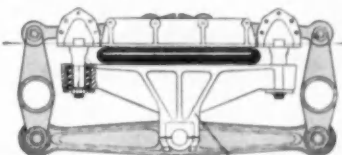


RS SERIES, rubber load cushions



Aluminum saddle standard on "RS" Series.

AR SERIES, air springs



Aluminum saddle and air reservoir, standard on "AR" Series.

Now! Heat treated lightweight forged steel or forged aluminum equalizing beams for all three series of Hendrickson Suspensions.



HENDRICKSON MFG. COMPANY
8001 WEST 47th STREET
LYONS (Chicago Suburb), ILLINOIS

1959 TRUCK SPECIFICATIONS

Continued from page 268

MAKE AND MODEL	WHEEL- BASE	Gross Vehicle Weight for Normal Service	TIRE SIZES		ENGINE DETAILS					TRANSMISSION		REAR AXLE					
			Standard Front and Rear	Maximum Authorized Tire Size (Dually unless noted)	No. of Cylinders, Bore and Stroke	Displacement	Comp. Ratio	Torque lb. ft.	Max. Brake H.P. at R.P.M. Given	Make and Model	Forward Speeds	Make and Model	Gear and Type	Drive and Torque	Gear Ratio Range in High		
																D-dual rear S-single rear	
																Chassis Weight (See definition)	Standard Front and Rear
Six-Wheelers—Cont'd																	
FWD—Cont'd																	
(D) 6-406D	184	233	40000	15150 9.00 20D	10.00 20	Cum NH220	6-51"x6	743 15.5	607	220-2100 Ful SC72	5	Ow 6-23	SF	T	4.7-11.5		
(D) 6-409	182	216	60000	18090 12.00 20D	13.00 20	Wau 145GKB	6-51"x6	779 6.2	595	240-2400 Ful 10A1120	10	Ow 6-33	SF	T	5.7-8.50		
(D) 6-406D	192	216	60000	18820 12.00 20D	13.00 20	GMC 6-71	6-41"x5	426 16.0	570	227-2250 Ful 10A1120	10	Ow 6-33	SF	T	5.7-8.50		
(D) 6-609D	192	216	60000	18900 12.00 20D	13.00 20	Cum NH220	6-51"x6	743 15.5	607	220-2100 Ful 10A1120	10	Ow 6-33	SF	T	5.7-8.50		
(D) 6-457	182	211	45000	13550 10.00 20D	11.00 20	Int RD501	6-41"x5 1/4	501 6.5	444	212-3000 Int T70	5	Ow 6-23	SF	T	4.7-11.5		
(D) 6-456D	184	233	45000	15270 10.00 20D	11.00 20	GMC 6-71	6-41"x5	426 16.0	570	227-2250 Ful SC72	5	Ow 6-23	SF	T	4.7-11.5		
(D) 6-456D	184	233	45000	15350 10.00 20D	11.00 20	Cum NH220	6-51"x6	743 15.5	607	220-2100 Ful SC72	5	Ow 6-23	SF	T	4.7-11.5		
(D) 6-487	182	211	48000	14000 10.00 20D	11.00 20	Int RD501	6-41"x5 1/4	501 6.5	444	212-3000 Int T70	5	Ow 6-33AR	SF	T	4.7-11.5		
(D) 6-488D	184	233	48000	15720 10.00 20D	11.00 20	GMC 6-71	6-41"x5	426 16.0	570	227-2250 Ful SC72	5	Ow 6-33AR	SF	T	4.7-11.5		
(D) 6-489D	184	233	48000	15800 10.00 20D	11.00 20	Cum NH220	6-51"x6	743 15.5	607	220-2100 Ful SC72	5	Ow 6-33AR	SF	T	4.7-11.5		
(D) 6-607	178	233	60000	16600 12.00 20D	13.00 20	Int RD501	6-41"x5 1/4	501 6.5	444	212-3000 Ful 10FA65	10	Ow 6-33	SF	T	5.7-8.50		
(D) 6-332	180	211	33000	11400 8.25 20D	9.00 20	Int BD308	6-31"x4 1/2	308 6.5	286	154-3600 Int T30	5	Ow 6-23L	SF	T	4.7-11.5		
(D) 6-354	180	211	35000	11500 8.25 20D	9.00 20	Int RD372	6-45"x4 1/2	372 6.5	308	165-3200 Int T60	5	Ow 6-23L	SF	T	4.7-11.5		
(D) 6-355	180	211	35000	11510 8.25 20D	9.00 20	Int RD406	6-45"x4 1/2	406 6.5	308	175-3200 Int T60	5	Ow 6-23L	SF	T	4.7-11.5		
(D) 6-365D	182	211	36000	13050 8.25 20D	10.00 20	Cum JTB8	6-41"x5	401 16.3	407	175-2500 Ful SC85	5	Ow 6-23	SF	T	4.7-11.5		
(D) 6-467	182	211	46000	14000 10.00 20D	11.00 20	Int RD501	6-41"x5 1/4	501 6.5	444	212-3000 Int T70	5	Ow 6-33AR	SF	T	4.7-11.5		
(D) 6-468D	184	233	46000	15370 10.00 20D	11.00 20	GMC 6-71	6-41"x5	426 16.0	570	227-2250 Ful SC72	5	Ow 6-33AR	SF	T	4.7-11.5		
(D) 6-469D	184	233	46000	15450 10.00 20D	11.00 20	Cum NH220	6-51"x6	743 15.5	607	220-2100 Ful SC72	5	Ow 6-33AR	SF	T	4.7-11.5		
(D) 66-707	186		70000	17400 11.00 20D		Int RD501	6-41"x5 1/4	501 6.5	444	212-3000 Int T70	5	Ow 6-33AR	SF	T	4.7-11.5		
Marmon-Herr.																	
(D) T786	156	192	37000	10298 10.22 5D	10.22 5	Ford	8-31"x3 1/2	332 7.6	328	212-3800 Cla 265	5	Tim SFHD	SF	H	** -7.20		
(D) T806	156	192	43000	10638 11.22 5D	11.22 5	Ford	8-31"x3 1/2	332 7.6	328	212-3800 Cla 265V	5	Tim SLHD	SF	H	** -7.20		
Oshkosh																	
(D) W-825-6X6	178		45000	17500 11.00 20		Cum R8602	6-41"x5 1/2	602	484	218-2600 Own MT825	10	Tim SFD3020P	2F				
(D) W-826-6X6	178		45000	19000 11.00 20		Cum H6B	6-41"x6	672	512	160-1800 Own MT826	10	Tim SFD3020P	2F				
(D) WA-906-6X6	208		65000	23200 11.00 24		Cum HRF6B	6-51"x6	743	580	190-2000 Own MT906	12	Tim SFD4600P	2F				
Peterbilt (D)																	
(D) 350	193	Opt	36000	10.00 20D	11.00 22	Cum NHB600	6-51"x6	743 17.0	500	200-2100 Spi 8041	12	Tim SW-3456	WF	R	6.16-6.80		
(D) 360	193	Opt	36000	10.00 20D	11.00 22	Cum NHB600	6-51"x6	743 17.0	500	200-2100 Spi 8041	12	Tim SW-459	WF	R	6.16-6.80		
(D) 361	194	Opt	44000	10.00 20D	11.00 22	Cum NHB600	6-51"x6	743 17.0	500	200-2100 Spi 8041	12	Tim SFD4600P	2F			10.16	
(D) 350 (coe)	135	Opt	36000	10.00 20	11.00 22	Cum NHB600	6-51"x6	743 17.0	500	200-2100 Spi 8041	12	SW 3456	WF	R	6.16-6.80		
(D) 351 (coe)	190	Opt	36000	13200 10.00 20	11.00 22	Cum NHB600	6-51"x6	743 17.0	500	200-2100 Spi 8045	12	Tim SW3456	WF	R	6.16-7.35		
(D) 360 (coe)	135	Opt	36000	10.00 20	11.00 22	Cum NHB600	6-51"x6	743 17.0	500	200-2100 Spi 8041	12	SW 459	WF	R	6.16-6.80		
Reo																	
(D) C-330	150		35000	*10090 9.22 5	10.22 5	Own OA1451	6-41"x4 1/4	331 6.73	270	145-3200 Cla 205V	5	Eat 28M	SF	T	7.78		
(D) C-332	150		37000	*10180 9.22 5	10.22 5	Own OA1451	6-41"x4 1/4	331 6.73	270	145-3200 Cla 205V	5	Eat 28M	SF	T	7.78		
(D) C-430	150		42000	*10750 10.22 5	11.22 5	Own OH170*	6-41"x4 1/4	331 7.5	297	170-3400 Cla 290V	5	Tim SLHD	HF	T	7.8-8.6		
(D) C-432	150		43000	*11040 10.22 5	12.22 5	Own OH170*	6-41"x4 1/4	331 7.5	297	170-3400 Cla 290V	5	Tim SLHD	HF	T	7.8-8.6		
(D) C-436	150		47000	*11360 10.22 5	12.22 5	Own OH170*	6-41"x4 1/4	331 7.5	297	170-3400 Cla 290V	5	Tim SLHD	HF	T	7.8-8.6		
(D) C-440	150		43000	*12575 10.22 5	11.22 5	Own OH170*	6-41"x4 1/4	331 7.5	297	170-3400 Cla 290V	5	Tim SLD	HF2	T	7.67		
(D) C-442	150		50000	*13570 10.22 5	12.22 5	Own OH170*	6-41"x4 1/4	331 7.5	297	170-3400 Cla 290V	5	Tim SLD	HF2	T	7.54		
(D) C-530	155		48000	*12267 11.22 5	12.24 5	Own OH170*	6-41"x4 1/4	331 7.5	297	170-3400 Cla 290V	5	Eat 38DP	SF	T	7.60-8.38		
(D) C-536	155		52000	*12567 11.22 5	12.24 5	Own OH170*	6-41"x4 1/4	331 7.5	297	170-3400 Cla 290V	5	Eat 38DP	SF	T	7.60-8.38		
(D) A-630	151		42000	*11510 10.22 5	11.22 5	Own OV207*	8-31"x3 1/2	390 7.3	354	207-3400 Fu SA65	5	Tim SLHD	HF	T	6.16-8.6		
(D) A-633	145		42000	*11825 10.22 5	11.22 5	Own OV207*	8-31"x3 1/2	390 7.3	354	207-3400 Fu R46	5	Tim SLHD	HF	T	6.16-8.6		
(D) A-633-D	145		42000	*12430 10.22 5	11.22 5	Cum JTB8	6-41"x5	401 16.3	412	175-2500 Fu SA65	5	Tim SLHD	HF	T	5.28-6.83		
(D) A-730	151		48000	*12755 11.22 5	12.24 5	Own OV207*	8-31"x3 1/2	390 7.3	354	207-3400 Fu R46	5	Tim SLHD	HF	T	6.16-8.6		
(D) A-733	145		47000	*13005 11.22 5	12.24 5	Own OV207*	8-31"x3 1/2	390 7.3	354	207-3400 Fu R46	5	Eat 38DP	SF	T	7.62-8.49		
(D) B-630-D 179*	155		43000	*12625 10.22 5	11.22 5	Cum NH180*	6-41"x6	672 15.5	504	180-2100 Spi 8452	5	Tim SLHD	HF	T	5.28-6.16		
(D) B-632-D 179*	155		43000	*13895 10.22 5	11.22 5	Cum NH180*	6-41"x6	672 15.5	504	180-2100 Spi 8452	5	Tim SLHD	HF	T	5.28-6.16		
(D) B-633-D 179*	155		42000	*14190 10.22 5	11.22 5	Cum NH180*	6-41"x6	672 15.5	504	180-2100 Spi 8452	5	Tim SLHD	HF	T	5.28-6.16		
(D) B-633-D 179*	154		43000	*14400 10.22 5	11.22 5	Cum NH180*	6-41"x6	672 15.5	504	180-2100 Fu R960	10	Tim SLHD	HF	T	5.28-6.16		
(D) B-730-D 188*	155		48000	*15160 11.22 5	12.24 5	Cum NH180*	6-41"x6	672 15.5	504	180-2100 Fu SC72	5	Eat 38DS	SF	T	4.87-7.17		
(D) B-732-D 188*	155		52000	*15360 11.22 5	12.24 5	Cum NH180*	6-41"x6	672 15.5	504	180-2100 Fu SC72	5	Eat 38DS	SF	T	4.87-7.17		
(D) B-733-D 188*	155		48000	*15515 11.22 5	12.24 5	Cum NH180*	6-41"x6	672 15.5	504	180-2100 Fu SC72	5	Eat 38DS	SF	T	4.87-7.17		
(D) B-733-D 188*	160		48000	*15425 11.22 5	12.24 5	Cum NH180*	6-41"x6	672 15.5	504	180-2100 Fu R960	10	Eat 38DS	SF	T	4.87-7.17		
(D) B-830-D-OH 188*	160		60000	*17875 11.00 24	12.00 24	Cum NH180*	6-41"x6	672 15.5	504	180-2100 Fu SC72	5	Eat 42M	HF2	T	7.08-9.27		
Truckstell																	
(D) F800	4R	155	221	28000	79604 8.22 5	Ford	6-3.62x3	223 7.8	202	133-4000 Ford++	12	Ford	HF	L	** 6.8		
(D) F700	4R	157	225	32000	89804 8.22 5	Ford	6-3.62x3.3	272 7.8	247	156-3800 Ford++	12	Ford	HF	L	** 7.2		
(D) F750	4R	157	225	34000	93504 8.22 5	Ford	6-3.62x3.3	302 7.5	279	175-3800 Ford++	15	Ford	HF	L	** 7.2		
(D) F800	4R	157	225	40000	101704 11.22 5	Ford	8-3.8x3.7	322 7.5	306	190-3800 Ford++	15	Ford	SF	L	** 7.67		
(D) F900	4R	157	225	48000	118404 11.22 5	Ford	8-3.8x3.7	302 7.5	279	175-3800 Ford++	15	Ford	SF	L	** 7.67		
(D) C5403	4R	158	205	28000	76504 8.22 5	Chev.	6-3.75x3	265 7.5	249	155-4200 Chev.++	12	Chev.	HF	L	** 6.17		
(D) C6103	4R	158	205	32000	78004 8.22 5	Chev.	6-3.56x3.8	236 8.0	210	140-4200 Chev.++	12	Chev.	HF	L	** 6.17		
(D) C7103	4R	138	205	34000	81704 8.22 5	Chev.	6-3.75x3	265 7.5	249	155-4200 Chev.++	12	Chev.	HF	L	** 6.17		
(D) C8103	4R	158	225	34000	83504 8.22 5	Chev.	6-3.75x3	265 7.5	249	155-4200 Chev.++	12	Chev.	HF	L	** 6.17		
(D) C9103	4R	138	205	48000	102504 9.22 5	Chev.	8-4x3.19	322 7.7	310	195-4000 Chev.++	15	Chev.	SF	L	** 7.17		
(D) C10103	4R	158	226	40000	110004 9.22 5	Chev.	8-4x3.19	322 7.7	310	195-4000 Chev.++	15	Chev.	SF	L	** 7.17		
Ward La Fr.																	
(D) D1T	180	220	39500	10.00 20	11.00 20	Cum T6427	6-41"x4 1/2	427	340	152-2600 Fu SA434	15	Tim SD3010P	2F	L	** -8.27		
(D) D3T**	180	220	39500	10.00 20	11.00 20	Cum R8572	6-41"x5 1/2	572	44								

ADVANCED DESIGN PISTONS

By GILLETT AND EATON

for Longer Heavy Duty Service



TROUBLE-FREE with thousands in use

★ Low initial cost ★ Low cost per mile

★ Amazing increase in piston life

★ Maintains new engine power and performance

G and E
WIRE INSERTS
PUT CAST IRON
WEAR IN TOP
RING GROOVE

G and E Wire Insert Piston before machining (left) and after ring grooves are cut (right) showing how the steel wire forms a tough wear-resisting surface on both faces of top ring groove. The patented ferrous plug molded in the head (for diesel pistons) prevents burning through head and lengthens diesel piston life!

With the thousands of G and E "Wire Insert" Pistons in use for periods up to 3 years—a phenomenal record for trouble-free operation has been established. The "Wire Insert" greatly reduces top ring groove wear and increases piston life.

The "Wire Insert" piston design—exclusive with G and E—combines all the advantages of aluminum alloy pistons with the long life of steel in the top ring groove lands. No noticeable increase in weight—unequalled for rapid heat flow—and at low cost.

A pre-shaped steel wire is cast into the piston where the top ring is located. When the grooves are machined, the closely spaced wire surfaces form hard bearing areas on top and bottom faces of the groove. Result—reduced ring land wear, longer piston life at lower cost.

as LIGHT as aluminum...wears LIKE IRON

VANASIL*

VANASIL Pistons have repeatedly run way over 200,000 miles with only .002" to .005" wear on the top ring grooves. On-the-road ring breakdowns caused by badly worn grooves are almost eliminated because Vanasil Pistons reduce top ring groove wear up to 75%! Nothing else compares with the genuine G & E Vanasil—the original Hyper-eutectic silicon alloy, proven by 19 years of use.

You Get ALL These Advantages Only In
GENUINE VANASIL PISTONS

G & E PROVED Hyper-eutectic Silicon Aluminum Alloy

1. LIGHT WEIGHT—Same as other aluminum alloys.
2. SCORING, SCUFFING MINIMIZED—Because of "Oil Absorbing" microscopic porous texture.
3. LONGER LIFE—30% less friction—30% harder. Greater "hot strength"—see chart at right.
4. TOP RING—Breakage virtually eliminated because of reduced ring groove wear.
5. LOW EXPANSION—Characteristics of Cast Iron.
6. CLOSE CLEARANCES—Fitted with Cast Iron Clearances.
7. SOLID SKIRT DESIGN—No expansion devices required.
8. HIGH HEAT CONDUCTIVITY—Similar to other aluminum alloys.
9. PLATING—No tin or other break-in coating required.

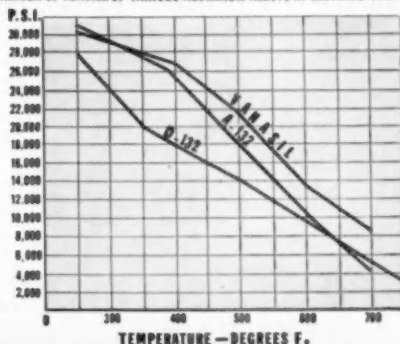
"OIL-ABSORBING"
PISTONS

FOR GASOLINE AND
DIESEL ENGINES

*Gillett & Eaton's trademark for a
Hyper-eutectic silicon aluminum alloy



A COMPARISON OF TENSILE OF VARIOUS ALUMINUM ALLOYS AT ELEVATED TEMPERATURES



Write for complete information and prices on Gillett and Eaton's Wire Insert and Vanasil longer lived pistons.



"Our 91st Year"

GILLETT and EATON, Inc.

802 DOUGHTY STREET
LAKE CITY, MINNESOTA



*Gordon Scott, V. P.
and General Manager,
Republic Van and
Storage Co., Inc.,
Los Angeles, Calif., says*

"Dependability and low price are two big reasons why our drivers buy more Ford trucks"

"Ford trucks cost less to own and operate . . . help us keep our promise to customers—
'Easy Moving at Lower Rates'

"We started in 1946 with only two vans. Today our company-owned fleet includes 43 Fords for local and short-haul runs. And our many over-the-road long-haul drivers, who own their own tractors, are just as sold on Ford trucks as we are.

"Breakdowns on a long haul could throw our drivers completely off schedule and cost them up to \$100 a day. Dependability is really important and that's a big reason our drivers buy more Fords than any other make. One driver says he can't see why anyone would need more engine than Ford's 332 HD V-8—it's got all the power you could want. On a cross-country run he averages 75 miles more a day with his C-800. They particularly like the roominess and comfort features of the Tilt Cab. They're mighty important to a man who drives a truck all day long.

"Our drivers replace their tractors every three years, so Ford's low prices mean big savings. Ford trucks cost less for maintenance, too. Our experience with Ford trucks has proved they cost less to own and operate."

Go FORDWARD for savings

FORD TRUCKS COST LESS

LESS TO OWN . . .
LESS TO RUN . . .
LAST LONGER, TOO!



NOW!
CERTIFIED PROOF
FORD TRUCKS
COST LESS

All tests
 conducted and results
CERTIFIED
 by America's foremost
 independent automotive
 research organization*

*NAME AVAILABLE ON REQUEST
 Send inquiry to: P.O. Box 6887
 Ford Division, Ford Motor Co.
 Detroit 81, Michigan

'59 Ford Pickups Win Economy Showdown U.S.A. —average 25.2% better gas mileage!

Impartial tests of the 1959 pickup models of all six makes prove conclusively that Ford's ½-ton pickups equipped with Short Stroke Sixes are the economy champs for '59.

HOW TESTS WERE MADE

Standard six-cylinder models of the six leading half-ton pickups first were put through exhaustive road trials. All '59 trucks—Ford and competitive—were bought from dealers, just as you would buy them. After at least 600 miles break-in, all were brought up to manufacturer's recommended specifications.

The trucks were then tested — by America's leading independent automotive testing firm—at constant speeds of 30, 45 and 60 miles an hour. Next came stop-and-go tests, ranging from moderate city traffic to normal retail delivery operation. Acceleration rates were carefully timed in each gear to insure accurate results for all makes. And to reduce any human factor, test drivers were continually shifted from truck to truck.

HOW NEW '59 SIXES RATE IN GAS MILEAGE

'59 FORD SIXES GIVE	25.2%	31.1%	9.6%	42.6%	22.0%	25.2%
	more miles per gallon than Make "C"	more miles per gallon than Make "I"	more miles per gallon than Make "G"	more miles per gallon than Make "D"	more miles per gallon than Make "S"	more miles per gallon than the average of all makes

The '59 Ford Sixes, in every test, averaged more miles per gallon than every other make! Combining all tests, the '59 Fords led the average of all other '59 pickups by 25.2%.

WHAT'S THE SECRET?

How can a '59 Ford Six make four gallons do the work of five in other trucks?

First, of all pickup Sixes, only Ford has modern Short Stroke design. This new type of engine is basically far more efficient than long-stroke Sixes of other pickups. Example: Ford's Six delivers more usable horsepower than any other pickup Six.

Second, to this modern engine Ford has added a new economy carburetor. By metering fuel more precisely in both low- and high-speed ranges, Ford's new carburetor boosts gasoline mileage in every type of driving. And Ford's Economy Carburetor is standard at no extra cost.

Your Ford Dealer now has the complete report of Economy Showdown U.S.A. Why not call or visit him today?

Every Ford has
SAFETY GLASS
 in every window



CHECK YOUR SPECS

1959 BUS SPECIFICATIONS

Line Number	BUS MAKE AND MODEL	GENERAL										ENGINE										Oiling System	
		Passenger Rating	Type (City Service, Parlor, etc.)	Standard Wheelbase (In.)	Overall Length (In.)—Bumper to Bumper	Inside Length (In.)—Passenger Compartment	Tread (In.)—Front and Rear	Complete Vehicle Weight—Dry (Lb.)	Standard Tire Size (In.)—Front and Rear	Make and Model	Cycle and Fuel	Location	Number of Cylinders—Bore and Stroke (In.)	Displacement (Cu. In.)—Rated Horsepower (A.M.A.)	Maximum Brake Hp. at Governed R.P.M.	Maximum Net Torque (Lb. Ft.) at Specified R.P.M.	Compression Ratio—to 1	Compression Pressure—(Lb.) at Specified R.P.M.	Valve Arrangement	Pressure to			
1	Crown	A-501-10	37 41 IC	200 ¹	384	353 ¹	80 ¹ 72	18500	10.00/20	Int	501	4-G UF	6-4 ¹ x 5 ¹	501 48.6	212 3000	445 1400 6.50	.....	.....	l	acdf	
2		A-590-10	33 41 IC	200 ¹	384	353 ¹	80 ¹ 72	18500	10.00/20	HS	590BH1	4-G UF	6-5 x 5	590 60.0	232 2800	490 1600 6.70	.....	.....	l	acdf	
3		A-501-11	37 45 IC	232	419	388	80 ¹ 72	19200	11.00/20	Int	501	4-G UF	6-4 ¹ x 5 ¹	501 48.6	212 3000	445 1400 6.50	.....	.....	l	acd	
4		A-590-11	37 45 IC	232	419	388	80 ¹ 72	19200	11.00/20	HS	590BH1	4-G UF	6-5 x 5	590 60.0	232 2800	490 1600 6.70	.....	.....	l	acdf	
5		A-778-11	37 45 IC	232	419	388	80 ¹ 72	20500	11.00/22	HS	779	4-G UF	6-5 ¹ x 6	779 29.8	254 2400	618 1600 6.10	.....	.....	l	acdf	
6		AD-743-11	37 45 IC	232	419	388	80 ¹ 72	21200	11.00/22	Cum	NHHB600	4-D UF	6-5 ¹ x 6	743 27.0	210 2100	570 1600 15.5	.....	.....	l	abcd	
7		AD-743-T-11	37 45 P	232	419	388	80 ¹ 72	21200	11.00/22	Cum	NHHB600	4-D UF	6-5 ¹ x 6	743	250 2100	690 1500 15.5	.....	.....	l	abcd	
8		AD-743-11	49 P	232	480	450	80 ¹ 72	.....	11.00/22	Cum	NHHB600	4-D UF	6-5 ¹ x 6	743 27.0	220 2100	570 1600 15.5	.....	.....	l	abcd
9	Flxible	218WA1	29 IC	218	410 ¹	300	80 ¹ 69 ¹	16100	9.00/20	Whi	WA390	4-G R	6-4 ¹ x 5	531 54.2	200 2900	440 1400 6.40	.....	.....	L	abdf	
10		219GM1	29 IC	218	410 ¹	300	80 ¹ 69 ¹	.....	9.00/20	GM	4-71	2-D R	4-4 ¹ x 5	284 28.9	150 2100	387 1600 16.0	.....	.....	l	abcd
11		236-DD-1	41 P	236	.....	401 ¹	80 ¹ 71 ¹	.....	.....	GM	6174E	2-D R	6-4 ¹ x 5	428	172 2000	496 1200 17.0	.....	.....	l	abcd
12	Flexible-Twin Coach	FT-33	40 CS	222	403	378	80 ¹ 72	15800	10.00/20	Fag	FTC-200	4-G UF	6-4 ¹ x 5	451 45.9	200 2800	400 1600 7.28	.....	.....	l	.....		
13		FT-35	44 CS	232 ¹	420	402	80 ¹ 72	16600	10.00/20	Fag	FTC-200	4-G UF	6-4 ¹ x 5	451 45.9	200 2800	400 1600 7.28	.....	.....	l	.....		
14		FT-40	52 CS	274 ¹	480	462	80 ¹ 72	18500	11.00/20	Fag	FTC-210	4-G UF	6-4 ¹ x 5	477 48.6	210 2800	480 1600 7.00	.....	.....	l	.....		
15		FT-40DL	52 CS	274 ¹	480	462	80 ¹ 72	18500	11.00/20	Fag	FLDH600	4-D UF	6-4 ¹ x 5 ¹	597 55.5	160 2225	455 1200 15.8	450 300	.....	l	abcd		
16	G.M.C.	TGM3102	31 CS	180 ¹	325 ¹	287	81 ¹ 75 ¹	9635	8.25/20	Own	270	4-G TR	6-3 ¹ x 4	270 34.3	124 3200	232 1000 7.75	165 1000	.....	l	abcdfgh		
17		TDM3714	37 CS	210 ¹	369 ¹	336	79 ¹ 70 ¹	15375	10.00/20	Own	4-71	2-D TR	4-4 ¹ x 5	204 28.9	143 2100	375 1600 17.0	385 500	.....	l	abcdfgh		
18		TDM4515	45 Sub	238 ¹	420	389	78 ¹ 70 ¹	19055	10.00/20	Own	6-71	2-D TR	6-4 ¹ x 5	426 43.4	211 2000	574 1600 17.0	385 500	.....	l	abcdfgh		
19		TDM5108	51 Sub	261 ¹	477	441	80 ¹ 70 ¹	20615	11.00/20	Own	6-71	2-D TR	6-4 ¹ x 5	426 43.4	211 2000	574 1600 17.0	385 500	.....	l	abcdfgh		
20		PD4104	41 P	261	420	390	78 ¹ 70 ¹	19425	11.00/20	Own	6-71	2-D TR	6-4 ¹ x 5	426 43.4	211 2000	574 1600 17.0	385 500	.....	l	abcdfgh		
21		TDH4516	45 CS	235	420	382	85 ¹ 76 ¹	18215	11.00/20	Own	6V-71	2-D TR	6-4 ¹ x 5	426 43.4	190 2000	550 1200 17.0	435 600	.....	l	abdf		
22		TDH4517	45 CS	235	420	382	79 ¹ 70 ¹	17450	10.00/20	Own	6V-71	2-D TR	6-4 ¹ x 5	426 43.4	190 2000	550 1200 17.0	435 600	.....	l	abdf		
23		TDH5301	51 53 CS	264 ¹	480	441	85 ¹ 76 ¹	19000	11.00/20	Own	6V-71	2-D TR	6-4 ¹ x 5	426 43.4	190 2000	550 1200 17.0	435 600	.....	l	abdf		
24		TDH5302	51 53 CS	264 ¹	480	441	79 ¹ 70 ¹	18650	11.00/20	Own	6V-71	2-D TR	6-4 ¹ x 5	426 43.4	190 2000	550 1200 17.0	435 600	.....	l	abdf		
25	Mack	C-41	41 CS	237 ¹	396	366 ¹	79 ¹ 70 ¹	19000	10.00/20	Own	END6731	4-D TR	6-4 ¹ x 6	672 57.0	170 2100	480 1200 16.6	530 1000	.....	l	acdfh		
26		C-47	45 CS	261 ¹	420	390 ¹	79 ¹ 70 ¹	18500	10.00/20	Own	END6732	4-D TR	6-4 ¹ x 6	672 57.0	170 2100	480 1200 16.6	530 1000	.....	l	acdfh		
27		C-49	51 CS	269 ¹	472 ¹	443	79 ¹ 70 ¹	20250	11.00/20	Own	END6732	4-D TR	6-4 ¹ x 6	672 57.0	170 2100	480 1200 16.6	530 1000	.....	l	acdfh		
28		97-D	41 IC	245 ¹	420	390	80 ¹ 71 ¹	22100	11.00/20	Own	ENDT673	4-D TR	6-4 ¹ x 6	672 57.0	205 2100	560 1500 16.6	550 1000	.....	l	acdfh		
29	Southern Coach	S-45-DHC	45 CS	232 ¹	419	404	80 ¹ 72	18714	11.00/22	Cum	NHHB600	4-D UF	6-5 ¹ x 6	743 63.0	200 2100	535 1200 15.5	.....	.....	l	abdf	
30		S-36-DHL	36 CS	194 ¹	358 ¹	341 ¹	80 ¹ 71 ¹	14460	10.00/20	Fag	FLDH600	D UF	6-4 ¹ x 5 ¹	597 55.2	160 2400	452 1200 15.8	.....	.....	l	acdfgh	
31		S-41-HF	41 CS	221 ¹	391 ¹	377 ¹	80 ¹ 72	15300	11.00/20	Fag	FTC180	4-G UF	6-4 ¹ x 4 ¹	404 43.4	180 2400	390 1600 17.50	.....	.....	l	acdf	
32		S-50-DHC	50 CS	275 ¹	481 ¹	447	86 ¹ 72	21310	11.00/22	Cum	NHHB600	4-D UF	6-5 ¹ x 6	743 63.0	200 2100	535 1200 15.5	.....	.....	l	abdf	
33		R-37	33 CS	182 ¹	356 ¹	316 ¹	80 ¹ 71 ¹	14530	10.00/20	Int	RD450	4-G R	6-4 ¹ x 5	451 45.9	182 3000	388 1600 6.50	388 1600	.....	l	abdf		

ABBREVIATIONS

- †—Two used.
 ‡—Torque converter.
 †—Generator, Delco-Remy; starter, Auto-Lite.
 †—Front, 14¹/₂; rear, 15.
 *—Hundred rpm.
 *—Air suspension.

- 1—EN510C propane engine optional.
 2—EN510C propane and ENDT673 diesel engines optional.
 3—Four speed mechanical transmission optional.
 4—10 or 12 also available.
 a—Main bearings.
 b—Wrist pins.
 c—Connecting rods.

- d—Camshaft.
 e—Accessory drive.
 f—Valve lifters or rocker arms and shafts.
 g—Timing gears or chain.
 h—Air compressor.
 i—Balancer shaft.
 A—Air.
 AL—Electric Auto-Lite Co.
 BL—Brown-Lipe.

- Bos—American Bosch Div.
 Ce—Centrifugal.
 CIC—City and intercity service.
 Cla—Clark Equipment Co.
 CS—City service.
 Cum—Cummins Engine Co.
 D—Diesel fuel.
 Do—Downdraft.
 DR—Delco-Remy Div.

TRANSPORTATION

ENGINEERING

FORMULAS

To help you in new truck selection, here are formulas often used to determine their operating characteristics. Symbols used are defined as follows . . .

B—engine piston bore—in.
 DP—drawbar pull—lb.
 FGR—final gear ratio.
 GA—grade ability—per cent.
 GVW—gross vehicle weight—lb.
 HP—horsepower. Maximum net horsepower (maximum gross horsepower less power consumed by engine accessories) as determined by using a dynamometer (can be obtained from the manufacturer) should be used.
 MPH—miles per hour.
 PD—piston displacement—cu in.
 R—rolling radius—in. Divide distance covered in inches in one wheel revolution with vehicle loaded by 6.28.
 RPM—engine revolutions per minute.
 S—engine piston stroke—in.

T—engine torque—lb-ft. To find torque in lb-in., multiply torque in lb-ft by 12. As in the case of horsepower, it's best to use actual dynamometer-measured net torque.

TE—tractive effort—lb.

Horsepower—HP

(Result is only approximate and should only be used when maximum net horsepower is not known)

$$T \times \text{RPM}$$

$$5252.1$$

TRANSIT & INTERCITY

FUEL SYSTEM				ELECTRICAL SYSTEM				Governor	TRANSMISSION				Universals	REAR AXLE		BRAKES		SPRINGS				RUNNING GEAR																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Carburetor or Injector Pump		Size (In.)	Tank Capacity (Gal.)	Ignition System—Make		Battery	Voltage and Amp. Hours Capacity		Type	Max. Governed Speed—M.P.H.		Clutch—Make and Size (In. diam.)		Make	No. of Forward Speeds	Low Speed Ratio—to 1	Type	Size of Series	Make and Model	Standard Gear Ratio—to 1	Type of Applicator	Total Lining Area (Sq. In.)	Drum Diam. (In.)	Operates on—	Total Lining Area (Sq. In.)	No. of Leaves	Length and Width (In.)	No. of Leaves	Length and Width (In.)	Front Axle—Make	Steering Gear—Make	Outside Diameter of Min. Turn Circle (Ft.)	Line Number																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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Ds—Drive shaft.
 Dup—Duplex.
 Fag—Fager.
 F-S—Fuller or Spicer.
 Fu—Fuller Mfg. Co.
 G—Gasoline.
 Gem—Gemmer Mfg. Co.
 GH—G. M. Hydramatic.
 GM—General Motors Corp.

H—Hydraulic.
 Hol—Holley Carburetor Co.
 HS—Hall-Scott.
 I—Valve in head.
 IC—Inter-city service.
 Int—International Harvester Co.
 L—Valves in side.
 LD—Leece-Neville (alternator); Delco-Remy (starter).

Lg—Long Mfg. Div.
 LN—Leece-Neville Co.
 LR—Lipe Rollway Corp.
 Mal—Mallory.
 Op—Optional.
 Ro—Rosa Gear and Tool Co.
 Ros—Rosa-Master.
 Sag—Saginaw Steering Gear Div.
 Spl—Spicer Mfg. Div.

Su—Suction.
 Sub—Suburban service.
 Tim—Timken Detroit Axle Co.
 TR—Transverse in rear.
 UF—Under floor.
 V—Vacuum.
 Var—Variable.
 Whl—White Motor Co.
 Zen—Zenith Carburetor Div.

Torque at Peak HP—T

HP x 5252.1

RPM

Maximum Net Torque—T

(Result using either formula is approximate and should only be used when actual net torque is not known)

(1) $PD \times .80$

(2) $T @ \text{peak HP} \times 5$

4

(For torque at peak horsepower, see formula above)

Vehicle Speed—MPH

RPM x R

168 x FGR

Drawbar Pull—DP

$T \text{ (lb.-in.)} \times FGR \times .90$
x .012 x GVW

(For worm gear rear axle, use .85 instead of .90)

Grade Ability—GA

$\frac{TE}{GVW} \text{ —.012}$

Piston Displacement—PD

B x B x .7854 x S x No. of Cyl

Final Gear Ratio—FGR

$R \times GVW \times (GA + .012)$

T (lb.-in.) x .90

(For worm gear rear axle, use .85 instead of .90)

Tractive Effort—TE

$T \text{ (lb.-in.)} \times FGR \times .90$
R

(For worm gear rear axle, use .85 instead of .90)



Power-packed WHITE 9064 operated by The Goff-Kirby Co., Cleveland, Ohio, delivers a 6-yard load of concrete for new super highway.

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for New Super Highway Construction

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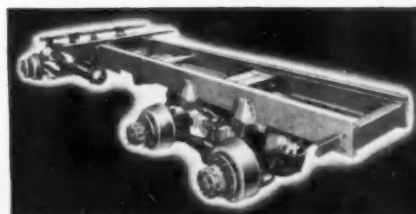
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Like this big, bold and brawny WHITE that packs a king-size load of spinning mixed concrete wherever it's needed, takes all the rugged slam-bang its job can hand it . . . and still keeps coming back for more, day after day, year after year!

Its compact front-end design (only 62" from centerline of front axle to back of cab) shifts more weight to the front axle, can

The rugged double-channel frame is crammed with extra "beef". Channels, heat-treated chrome-manganese side rails and tubular-steel cross members are all locked together with precision-fitted nuts and bolts.

There's a WHITE for every construction job — hauling, dumping, rigging — and every WHITE is loaded with famous WHITE quality and engineering skill. Built exactly the way the man who owns it wanted it built. With the exact dimensions, weight,



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horsepower, transmission and axles for the precise performance he needs. That's why he swears by it. To him, it's not just a truck . . . it's his tailor-made WHITE!

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WHITE



CHECK YOUR SPECS

ENGINE POWER RATINGS

Diesel

ENGINE MAKE AND MODEL	Number of Cylinders Bore and Stroke (In.)	MAX. BRAKE H.P. at R.P.M.		Piston Displacement (Cu. In.)	Compression Ratio	TORQUE		Engine Weight Without Carburetor or Ignition (Lb.)
		With Bare Engine	With Standard Accessories			Maximum Torque (Lb. Ft.)	Maximum Torque (Lb. Ft.)	
ALLIS-CHALMERS								
ADSS16	6-4 1/2 x 5 1/2	120-1600		516.0	14.20	440-1200		2130
TDS844	6-8 1/2 x 6 1/2	220-1850		844.0	13.30	653-1550		2995
CERLIST								
3	3-4 x 4 1/2	98-3000	72-2600	170.0	22.00	170-		615
CONTINENTAL								
TD6427	6-4 1/2 x 4 1/2	147-2600		427.0	14.50	307-1200		1270
RD6572	6-4 1/2 x 5 1/2	172-2400		572.0	14.50	428-1300		1785
SD6802	6-5 1/2 x 5 1/2	225-2200		802.0	14.70	620-1300		
VD8603	6-8 1/2 x 4 1/2	200-2800		603.0	15.80	469-1300		1096
CUMMINS								
J6	6-4 1/2 x 5	100-1800	75-1800	401.0	15.70	305-1450		1505
JF6	6-4 1/2 x 5	130-2200	79-2000	401.0	15.70	305-1450		1545
JN6	6-4 1/2 x 5	130-2500	90-2200	401.0	16.30	295-1800		1555
JS6	6-4 1/2 x 5	160-2500	110-2200	401.0	13.00	375-1700		1600
JN56	6-4 1/2 x 5	175-2500	122-2200	401.0	15.50	407-1750		1610
JT6	6-4 1/2 x 5	175-2500	121-2200	401.0	16.30	407-1750		1615
MR4	4-5 1/2 x 6	115-1800	85-1800	495.0	15.50	375-1200		1765
HR4	4-5 1/2 x 6	115-1800	85-1800	495.0	15.50	375-1200		1755
NH4	4-5 1/2 x 6	130-2000	93-1800	495.0	15.50	403-1200		1815
NT4	4-5 1/2 x 6	165-2000	117-1800	495.0	15.50	475-1400		1875
H6	6-4 1/2 x 6	160-1800	120-1800	672.0	16.60	512-1250		2330
NH180	6-4 1/2 x 6	180-2100		672.0	15.50	504-1525		2400
NH195	6-4 1/2 x 6	195-2100		672.0	15.50	535-1500		2420
HR6	6-5 1/2 x 6	175-1800	130-1800	743.0	15.50	550-1300		2330
HRF6	6-5 1/2 x 6	190-2000	136-1800	743.0	15.50	560-1300		2325
HS6	6-4 1/2 x 6	210-1800	155-1800	672.0	14.00	673-1250		2475
HR56	6-5 1/2 x 6	240-1800	180-1800	743.0	13.50	753-1300		2610
NH220	6-5 1/2 x 6	220-2100	150-1800	743.0	16.50	606-1600		2420
NT6	6-5 1/2 x 6	250-2100	170-1800	743.0	15.50	695-1500		2515
NT06	6-5 1/2 x 6	262-2100	172-1800	743.0	15.50	695-1500		2515
NHS6	6-5 1/2 x 6	290-2100	192-1800	743.0	13.50	775-1500		2720
NHRS6	6-5 1/2 x 6	320-2100	220-1800	743.0	12.00	865-1600		2720
NRT6	6-5 1/2 x 6	300-2100	201-1800	743.0	14.50	810-1550		2525
NRT06	6-5 1/2 x 6	335-2100	225-1800	743.0	14.50	900-1500		2525
NHR6	6-5 1/2 x 6	175-1800	130-1800	743.0	15.50	550-1300		2420
NHRF6	6-5 1/2 x 6	190-2000	136-1800	743.0	15.50	560-1300		2385
NHH220	6-5 1/2 x 6	220-2100	150-1800	743.0	15.50	606-1600		2420
NHHT6	6-5 1/2 x 6	250-2100	172-1800	743.0	15.50	695-1500		2590
NHHR6	6-5 1/2 x 6	320-2100	220-1800	743.0	12.00	865-1600		2605
NHHRF6	6-5 1/2 x 6	300-2100	201-1800	743.0	14.50	810-1550		2605
NT180	6-5 1/2 x 6	180-2100		495.0	15.50	495-1500		1935
NH200	4-5 1/2 x 6	200-2100		495.0	15.50	540-1500		1935
DEUTZ ⁵								
F3L712	3-3 1/2 x 4 3/4	45-2600	30-2000	156.0	20.00	92-1800		661
F4L712	4-3 1/2 x 4 3/4	60-2600	40-2000	207.0	20.00	123-1800		694
F6L712	6-3 1/2 x 4 3/4	90-2600	60-2000	311.0	20.00	164-1800		903
F4L514	4-4 1/2 x 5 1/2	90-2300	56-1800	325.0	17.50	215-1200		1079
F6L514	6-4 1/2 x 5 1/2	132-2300	84-1800	477.0	17.50	310-1200		1466
F4L614	4-4 1/2 x 6 1/2	180-2300	112-1800	649.0	17.50	415-1200		1871
F4L12L614	12-4 1/2 x 6 1/2	265-2300	170-1800	974.0	17.50	625-1200		2796
BF4L614	6-4 1/2 x 5 1/2	157-2300	105-1800	487.0	15.40	361-1500		1431
BF4L614	6-4 1/2 x 5 1/2	210-2300	140-1800	649.0	15.40	483-1500		1926
BF12L614	12-4 1/2 x 5 1/2	300-2300	210-1800	974.0	15.40	751-1500		2862
F6L714	6-4 1/2 x 5 1/2	160-2300	100-1800	576.0	17.50	375-1200		1540
DEUTZ—Cont'd								
F8L614	8-4 1/2 x 5 1/2	220-2300	133-1800	771.0	17.50	440-1200		1871
F12L714	12-4 1/2 x 5 1/2	350-2300	200-2300	1157.0	17.50	655-1200		2796
GENERAL MOTORS								
4-71	4-4 1/2 x 5	150-2300		284.0	17.00	375-1600		1570
4-71T	4-4 1/2 x 5	171-2300		284.0	17.00	411-1600		1760
6-71	6-4 1/2 x 5	243-2100		476.0	17.00	574-1600		1975
6-71T	6-4 1/2 x 5	310-2300		426.0	17.00	636-1600		2165
6-110	6-5 1/2 x 5 1/2	310-2000	230-1800 ⁶	670.0	16.00	849-1400		3260
4-71E	4-4 1/2 x 5	145-2100		284.0	17.00	385-1200		1550
6-71E	6-4 1/2 x 5	218-2100	170-1800 ⁶	426.0	17.00	562-1200		2010
6-110	6-5 1/2 x 5 1/2	335-2000	237-1800 ⁶	660.0	18.00	845-1200		3260
3-53	3-3 1/2 x 4 1/2	97-2800	58-2200	159.0	17.00	187-1200		890
4-53	4-3 1/2 x 4 1/2	130-2800	82-2200	212.0	17.00	254-1200		1040
6V53	6-3 1/2 x 4 1/2	195-2800	125-2200	318.0	17.00	386-1200		1340
6V71	6-4 1/2 x 5	252-2300	162-1800	426.0	17.00	565-1200		1855
8V71	8-4 1/2 x 5	334-2300	215-1800	567.0	17.00	750-1200		2305
12V71	12-4 1/2 x 5	504-2300	324-1800	851.0	17.00	1130-1200		3205
HERCULES								
DOOD	4-4 1/2 x 4 1/2	79-2600	53-1800	255.0	15.50	182-1400		750
DJXH	6-3 1/2 x 4 1/2	99-2600	67-1800	298.0	15.50	234-1400		950
DXLD	6-4 1/2 x 5	142-2600	95-1800	426.0	15.50	333-1600		1350
DRXC	6-4 1/2 x 5 1/2	147-2200	100-1600	529.0	15.00	400-1100		1600
DFXE	6-5 1/2 x 6	228-2100	170-1600	895.0	14.80	680-1200		2500
DFXH	6-5 1/2 x 6	260-2100	187-1600	935.0	14.80	750-1200		2600
DNX8D	8-6 1/2 x 6	388-1800	280-1600	1468.0	14.80	1100-1200		4200
MACK								
END673	6-4 1/2 x 6	170-2100		672.0	16.59	420-1200		1927
ENDT673	6-4 1/2 x 6	205-2100		672.0	16.59	560-1400		1930
MERCEDES-BENZ								
OM636	4-3 1/2 x 3 1/2	46-3500	32-3000	108.0	19.00	69-1500		400
OM312	6-2 1/2 x 4 1/4	110-3000	70-2400	280.0	19.50	171-1700		800
OM321	6-3 1/2 x 4 1/4	120-3000	85-2600	311.0	20.00	238-1600		792
OM315	6-4 1/2 x 5 1/2	145-2100	110-1800	505.0	18.50	398-1300		1750
OM326	6-5 1/2 x 5 1/2	200-2200	140-1800	659.0	20.50	506-1300		1740
P. & H.								
387C18T	3-4 1/2 x 5 1/2	165-1800	115-1800	261.0	17.00	508-1500		1240
487C18T	4-4 1/2 x 5 1/2	230-1800	160-1800	348.0	17.00	680-1600		1550
667C13T	6-4 1/2 x 5 1/2	325-1800	230-1800	522.0	17.00	950-1600		1890
WALKER								
180DLC	4-3 1/2 x 3 1/2	45-2400	31-2000	144.0	17.00	102-1800		475
185DLC	4-3 1/2 x 3 1/2	60-2400	44-2000	216.0	17.00	152-1000		800
190DLC	6-3 1/2 x 4	84-2800	58-2000	265.0	17.00	191-1400		868
195DLC	6-4 x 4	98-2800	67-2000	302.0	17.00	221-1800		965
135DKB	6-4 1/2 x 5	147-2800	99-2000	426.0	17.50	328-1600		1386
135DKBS	6-4 1/2 x 5	185-2800	121-2000	426.0	17.50	400-1800		1496
148DKB	6-5 1/2 x 6	200-2100	147-1800	779.0	17.50	584-1000		2320
148DKBS	6-5 1/2 x 6	280-2100	194-1800	779.0	17.50	706-1800		2445
WAKDB	6-6 1/2 x 6 1/2	258-1800	195-1600	1197.0	16.50	840-1000		3800
WAKDBS	6-6 1/2 x 6 1/2	400-1800	296-1600	1197.0	16.50	1062-1600		3925
197DLC	6-4 x 4	91-2800	65-2000	302.0	18.50	216-1600		800
197DLC	6-4 x 4	131-2800	84-2000	302.0	18.50	278-1800		850

ABBREVIATIONS

¹—Weight complete with ignition and carburetor.

²—Liquefied petroleum gas engine.
³—Industrial power ratings.
⁴—High output engine.
⁵—Air cooled engines.

⁶—Without fan or muffler.

⁷—Turbocharged.

BE—Bare engine.

EA—Engine with standard accessories.

Gasoline

ENGINE MAKE AND MODEL	Number of Cylinders Bore and Stroke (in.)	MAX. BRAKE H.P. at R.P.M.		Piston Displacement (Cu. In.)	Compression Ratio	TORQUE		Engine Weight Without Carburetor or Ignition (Lb.)
		With Bare Engine	With Standard Accessories			Maximum Torque at R.P.M. (Lb. Ft.)	Maximum Torque at R.P.M. (Lb. Ft.)	
DRENNAN								
B-70	6-4x5 1/2	90-2000	75-2000	415.0	4.50	278-900 (EA)	800	
B-100	6-4 1/2 x 5 1/2	94-2000	80-2000	496.0	4.50	350-1200 (EA)	875	
CHEVROLET								
Thrifmaster	6-3 1/2 x 3 1/2	135-4000	115-3600	235.5	8.25	217-2000 (BE)	552	
Thrifmaster Spl.	6-3 1/2 x 3 1/2	135-4000	110-3600	235.5	8.25	217-2000 (BE)	554	
Jobmaster	6-3 1/2 x 3 1/2	150-4000	130-3800	261.0	8.00	235-2000 (BE)	556	
Trademaster	6-3 1/2 x 3 1/2	160-4200	137-4000	263.0	8.50	270-2000 (BE)	528	
Taskmaster	6-3 1/2 x 3 1/2	160-4200	137-4000	263.0	8.00	270-2000 (BE)	524	
Loadmaster	6-4x3 1/2	195-4000	170-4000	322.0	7.70	310-2200 (BE)	693	
Sup. Taskmaster	6-4x3 1/2	175-4400	160-4000	263.0	8.00	275-2400 (BE)	524	
Workmaster	6-4 1/2 x 3 1/2	230-4400	194-3800	348.0	8.00	335-2800 (BE)	791	
Workmaster Spl.	6-4 1/2 x 3 1/2	185-4000	166-3600	348.0	7.75	315-2200 (BE)	785	
CONTINENTAL								
Y-4091	4-2 1/2 x 3 1/2	36-3400		91.0		70-1500 (BE)	290	
F-4124	4-3x4 3/8	47-3200		124.0		84-1500 (BE)	395	
F-4140	4-3 1/2 x 4 3/8	52-3200		140.0		108-1600 (BE)	395	
F-4162	4-3 1/2 x 4 3/8	58-3200		162.0		122-1500 (BE)	395	
F-4186	6-3 1/2 x 4 3/8	77-3500		186.0	6.70	142-1600 (BE)	515	
F-4209	6-3 1/2 x 4 3/8	90-3500		209.0	6.70	160-1500 (BE)	515	
F-4226	6-3 1/2 x 4 3/8	99-3500		226.0	6.70	180-1500 (BE)	515	
M-6271	6-3 1/2 x 4 3/8	97-3000		271.0	6.70	209-1400 (BE)	755	
M-6290	6-3 1/2 x 4 3/8	106-3000		290.0	6.70	226-1400 (BE)	755	
M-6330	6-4x4 3/8	125-3000		330.0	6.70	258-1400 (BE)	755	
B-6371	6-4 1/2 x 4 3/8	123.5-3000		371.0	6.50	285-1200 (BE)	870	
T-6371	6-4 1/2 x 4 3/8	144-3000		371.0	6.40	297-1400 (BE)	1070	
B-6427	6-4 1/2 x 4 3/8	142-3000		427.0	6.50	327-1200 (BE)	875	
T-6427	6-4 1/2 x 4 3/8	170-3000		427.0	6.40	350-1300 (BE)	1075	
U-6501	6-4 1/2 x 5 1/8	186-2600		501.0	6.20	414-1200 (BE)	1525	
R-6513	6-4 1/2 x 5 1/8	192-2800		513.0	6.00	410-1200 (BE)	1525	
R-6572	6-4 1/2 x 5 1/8	220-2800		572.0	6.00	464-1200 (BE)	1525	
R-6602	6-4 1/2 x 5 1/8	232-2800		602.0	6.00	482-1200 (BE)	1525	
S-6479	6-4 1/2 x 5 1/8	250-2800		748.0	6.00	575-1300 (BE)	1985	
K-6271	6-3 1/2 x 4 3/8	115-3200		271.0	6.40	216-1400 (BE)		
K-6290	6-3 1/2 x 4 3/8	123-3200		290.0	6.40	232-1400 (BE)		
K-6330	6-4x4 3/8	147-3200		330.0	6.40	274-2000 (BE)		
S-6820	6-5 1/2 x 5 1/8	300-2800		820.0		629-1300 (BE)		
V-6803	6-4 1/2 x 4 3/8	260-3200		603.0	7.00	500-1400 (BE)	1786	
M-6363	6-4x4 1/2	146-3000		363.0	6.70	304-1600 (BE)	840	
K-6363	6-4x4 1/2	162-3200		363.0	6.50	300-1800 (BE)	980	
FO-6228	6-3 1/2 x 4 3/8	143-4500		226.0	6.00	212-2000 (BE)		
DODGE								
W-300M	6-3 1/2 x 4 3/8	113-3600	102-3600	230.2	7.90	196-1600		
D100, D200, D300, P300, P400, W100, W200	6-3 1/2 x 4 3/8	120-3600	109-3600	230.2	7.90	202-1600		
D400, S400, D500, S500, W300	6-3 1/2 x 4 3/8	125-3600	115-3600	250.6	7.10	216-1600		
D600, S600, W500	6-3 1/2 x 4 3/8	130-3600	120-3600	265.4	7.10	228-1600		
D100, D200, D300, P300, P400, W100, W200	6-3 1/2 x 3 1/2	205-4400	168-4400	318.1	8.25	290-2400		
D400, S400, D500, S500, W300	6-3 1/2 x 3 1/2	207-4400	170-4400	318.1	8.25	292-2400		
C500, D600, C600, S600	6-3 1/2 x 3 1/2	210-4400	175-4400	314.6	7.60	300-2400		
D700, C700, S700, T700	6-3 1/2 x 3 1/2	218-3900	190-3900	354.1	7.50	319-2400		
D800, T800	6-3 1/2 x 3 1/2	224-3900	200-3900	354.1	7.50	340-2000		
D900, T900	6-3 1/2 x 3 1/2	234-3900	211-3900	354.1	7.50	360-2400		
V-8	6-3 1/2 x 3 1/2	205-4400	168-4400	318.1	8.25	290-2400 (BE)		
FORD								
EBR, EBS, EBT	6-3 1/2 x 3 1/2	139-4200	126-4000	223.0	8.10	205-2900 (BE)	418	
ECS	6-3 1/2 x 3 1/2	196-3800	172-3600	302.0	7.60	299-2500 (BE)	641	
ECT	6-3 1/2 x 3 1/2	212-3800	187-3600	332.0	7.60	328-2500 (BE)	648	
EDM, EEJ	6-3 1/2 x 3 1/2	186-4000	158-4000	292.0	7.90	269-2700 (BE)	553	
EKE	6-3 1/2 x 3 1/2	187-3800	160-3600	292.0	7.60	270-2900 (BE)	553	
EDL	6-4 1/2 x 3 1/2	226-3800	190-3600	401.0	7.50	350-2300 (BE)	963	
EDM	6-4 1/2 x 3 1/2	260-3600	224-3400	477.0	7.50	430-2300 (BE)	927	
EDN	6-4 1/2 x 4 1/2	277-3400	246-3200	534.0	7.50	490-2300 (BE)	941	
GMC								
270	6-3 1/2 x 4	130-3600	121-3400	269.5	7.75	238-1650 (BE)		
300	6-3 1/2 x 4	140-3600	127-3400	269.5	7.75	246-1800 (BE)		
302	6-4x4	160-3800	141-3200	301.6	7.50	268-1800 (BE)		
336	6-3 1/2 x 3 1/2	200-4400	171-3600	336.9	7.50	307-2200 (BE)		
370	6-4x3 1/2	232-4200	199-3600	370.7	7.65	355-2800 (BE)		
503	6-4 1/2 x 5 1/8	217-3000	185-2600	502.7	8.50	455-1600 (BE)		
HERCULES								
ZXB	4-2 1/2 x 3	21-2800	18-2600	65.0	6.30	40-1800 (BE)	179	
IXB	4-3 1/2 x 4	46-3200	39-3200	133.0	6.50	92-1800 (BE)	293	
IXLB	4-3 1/2 x 4 1/2	49-3200	42-3200	141.0	6.50	97-1800 (BE)	293	
QXLD	6-3 1/2 x 4 1/2	92-3200	77-3200	236.7	6.50	190-1400 (BE)	440	
HERCULES - Cont'd								
JXC	6-3 1/2 x 4 1/2	103-3200	87.5-3200	282.0	6.50	207-1400 (BE)	605	
JXD	6-4x4 1/2	113-3000	96-3000	320.0	6.50	240-1200 (BE)	605	
JXLD	6-4x4 1/2	131-3200	111-3200	339.0	6.50	272-1400 (BE)	630	
WXLG-3	6-4 1/2 x 4 1/2	130-2600	118-2600	404.0	6.50	312-1300 (BE)	825	
RXC	6-4 1/2 x 5 1/8	143-2400	121-2400	529.0	6.30	372-1100 (BE)	1010	
HXE	6-5 1/2 x 6	227-2000	193-2000	935.0	6.20	790-900 (BE)	1830	
HERCULES-HALL-SCOTT								
500GV3, 500GV4	6-5x5	242-2800	205-2800	590.0	6.60	492-1600 (BE)	1130 1/2	
500BVI 1	6-5x5	255-2800	217-2800	590.0	9.00	530-1600 (BE)	1130 1/2	
500GHI 1	6-5x5	242-2800	205-2800	590.0	6.60	482-1600 (BE)	1210	
500BHI 1	6-5x5	255-2800	217-2800	590.0	9.00	530-1600 (BE)	1210	
6156G2	6-5 1/2 x 6	300-2400	255-2400	935.0	6.40	800-1200 (BE)	2152	
6156B1	6-5 1/2 x 6	340-2400	289-2400	935.0	8.10	920-1200 (BE)	2150	
6182G2	6-5 1/2 x 7	320-2300	275-2300	1091.0	6.60	950-1200 (BE)	2150	
6182B1	6-5 1/2 x 7	368-2300	313-2300	1091.0	8.10	1080-1200 (BE)	2150	
779	6-5 1/2 x 8	263-2400	223-2400	779.0	6.00	670-1600 (BE)	1786	
INTERNATIONAL								
U-240	6-3 1/2 x 3 1/2	72-2400	66-2400	220.5	6.50	177-1200 (BE)	810 1/2	
U-254-6	6-3 1/2 x 4 1/2	83-2400	79-2400	264.0	7.00	195-1400 (BE)	875	
U-308	6-3 1/2 x 4 1/2	92-2400	87.5-2400	306.0	6.50	230-1200 (BE)	1010	
U-372	6-4 1/2 x 4 1/2	110-2200	104-2200	372.1	6.50	268-1200 (BE)	1240 1/2	
U-450	6-4 1/2 x 5	139-2200	126-2200	450.0	6.50	348-1350 (BE)	1290 1/2	
U-501	6-4 1/2 x 5 1/2	141-2200	131-2200	501.0	6.50	394-1200 (BE)	1320	
UV-401	6-4 1/2 x 3 1/2	170-2600	160-2600	401.0	7.69	350-1900 (BE)	852	
UV-461	6-4 1/2 x 4 1/2	179-2600	170-2600	461.0	7.20	378-1900 (BE)	862	
UV-549	6-4 1/2 x 4 1/2	222-2900	208-2900	549.0	7.00	490-1800 (BE)	1002	
MACK								
EN291	6-3 1/2 x 4 1/2	107-2600	100-2600	290.0	6.90	232-1400 (BE)	920	
EN331	6-4x4 3/8	122-2800	114-2800	330.0	6.80	264-1400 (BE)	920	
EN401	6-4 1/2 x 5 1/8	150-2800	142-2800	401.0	7.29	330-1400 (BE)	1070	
EN468	6-4 1/2 x 5	185-2800	167-2800	468.0	7.54	380-1400 (BE)	1070	
EN707C	6-5x6	232-2100	214-2100	707.0	7.50	618-1200 (BE)	1902	
EN510C	6-4 1/2 x 5 1/2	185-2600	166-2600	510.0	7.68	418-1400 (BE)	1545	
REO								
OA331LPG 1	6-4 1/2 x 4 1/2	142-3200	130-3200	331.0	8.20	258-1600 (BE)	914 1/2	
OH170	6-4 1/2 x 4 1/2	170-3400	155-3400	331.0	7.50	297-1600 (BE)	963 1/2	
2550A-LPG 1	6-4 1/2 x 4 1/2	100-3400	86-3400	255.0	7.15	182-1600 (BE)	872 1/2	
OH160LPG 1	6-4 1/2 x 4 1/2	160-3300	146-3200	331.0	8.20	280-1200 (BE)	995 1/2	
OV207	6-3 1/2 x 4 1/2	207-3400	186-3400	390.0	7.30	354-2400 (BE)	1211 1/2	
OV235	6-4 1/2 x 4 1/2	235-3400	213-3400	440.0	7.30	412-2400 (BE)	1211 1/2	
OV220LPG 1	6-4 1/2 x 4 1/2	220-3200	203-3200	440.0	8.50	405-2000 (BE)	1262 1/2	
OA110	6-3 1/2 x 4 1/2	110-3400	98-3400	255.0	6.70	194-1400 (BE)	872 1/2	
OA130	6-3 1/2 x 4 1/2	130-3300	119-3300	282.0	6.94	230-1600 (BE)	870 1/2	
OA145	6-4 1/2 x 4 1/2	145-3200	134-3200	331.0	6.73	245-1400 (BE)	891 1/2	
OH185	6-4 1/2 x 4 1/2	168-3400	170-3400	362.0	7.50	320-1200 (BE)	970 1/2	
ROLINE								
TH540	6-4 1/2 x 4 1/2	206-3000		540.0	6.70	450-1800 (BE)	1355	
TH844	6-5 1/2 x 4 1/2	298-2600	265-2600	844.0	6.70	730-1700 (BE)	1900 1/2	
TH884	6-5 1							

**For increased traction, increased payload,
increased tire mileage, at a cost you can afford**



New Dayton Thoro-Trac^{*}

Here is important news for alert fleet operators. Think of it! With Dayton Thoro-Trac Tandem V-Belt Drives you will greatly increase driving traction . . . up your payload potential and reduce tire cost through greater tire mileage.

In addition, you will minimize wheel spin and tire scuffing, reduce side slippage and equalize braking for greater safety on any over-the-road haul—and *all this at low cost!*

Easy to install . . . Dayton Thoro-Trac V-Belt drives link up the driving axle with the dead axle

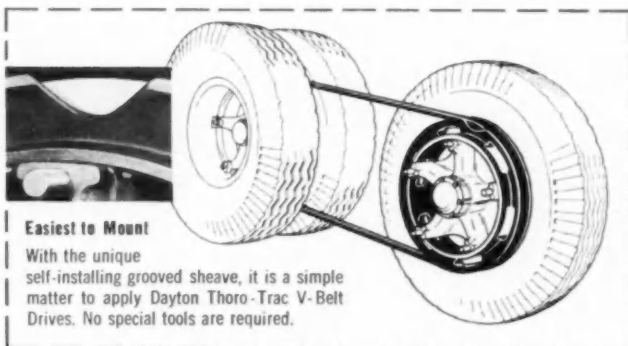
to give you eight driving tires instead of four . . . plus added tire mileage and traction.

Designed for aggressive truckers to improve their operation at lower per mile cost, the lightweight Dayton Thoro-Trac Tandem V-Belt drive quickly pays for itself. See your Dayton dealer for details on how to convert your present vehicles for increased traction, improved tire mileage and a bonus in lighter weight. Or write The Dayton Rubber Co., Tandem V-Belt Sales, Dayton 1, Ohio. We'll rush more information to you.

*T.M.



Tandem V-Belt Power Drives!



Easiest to Mount

With the unique self-installing grooved sheave, it is a simple matter to apply Dayton Thoro-Trac V-Belt Drives. No special tools are required.



Dayton Rubber

Tandem V-Belt Sales, The Dayton Rubber Co., Dayton 1, Ohio
Gentlemen: I would like more information on Dayton's new
Thoro-Trac Tandem V-Belt Drives.
Please send me folder A-3172-58.

Name _____

Address _____

City _____

State _____



CHECK YOUR SPECS

SPARK PLUG HEAT RANGE

CONSIDER THREE things when you select spark plugs—thread size, reach and heat range. You aren't likely to put in a plug with the wrong thread size . . . it either fits the threads or doesn't.

Reach is important since too long a plug will get hit by the piston. If it is too short you get poor ignition.

Heat range is the measure of the relative time it takes for the plug to

dissipate ignition heat through the head into the cooling system. A "cold" plug (short insulator) does it quickly. A "hot" plug (long insulator) takes longer. One reason plugs carbon-up or become deposited with soot is that they're too cold for that particular engine. On the other hand, when the plug electrodes oxidize quickly, you might be using too hot a plug.

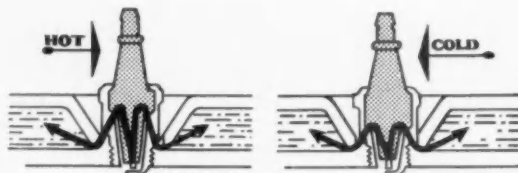


Chart below shows how the makers rank their plugs within each size by heat range. Between makes, the range shown is only relative and no direct comparison is possible. For example, both the AC M-8 and the Hastings 10-170 are hot plugs in their size but not necessarily to the same degree of being "hot." On the other hand, the AC M-8 is definitely a hotter plug than the AC 104.

Thread Size Reach and Hex Size	HEAT RANGE	AC		Champion	Auto-Lite		Blue Crown	Hastings
		Automotive	Commercial		Standard and Transport	Resistor		
10 mm 1/4 in. 5/16 in. Hex	HOT ↑ ↓ COLD	M-8 M-8 104	104 Com 103 Com	Y-8 Y-6 UY-6; Y-4A	P-6 P-6 P-4	PR-6 PR-6 PR-4	T-8 T-8 T-8 T-8	10-170 10-230 10-300
14 mm 3/4 in. 1 1/8 in. Hex	HOT ↑ ↓ COLD	47XL 46XL 45XL, 45XLR R-44XL	CR-45XL 44XL Com, 44XLR Com	N-18 N-8, KN-8 N-6 N-3	AG-7 AG-5, AG-52*, AE-10 AG-3	4GS-125, 4GS-150 AGR-51, 4GS-175 4GS-200, AGR-41	MT-14 MT-13 MT-12 MT-12	14-150L
14 mm 3/4 in. 1 1/8 in. Hex	NORM. ↑ ↓ COLD	R-45XLS R-44XLS		N-16Y† N-12Y†		AGR-82* AGR-82* AGR-42* AGR-32	MT-12	
14 mm 1/2 in. 5/8 in. Hex	HOT ↑ ↓ COLD	45F 44F		L-14 L-10 L-7 L-5	AE-6, AE-62* AE-4	AER-6 AER-4	MH-16 MH-16 MH-14 MH-14	
14 mm 1/2 in. 5/8 in. Hex	HOT ↑ ↓ COLD	47L 45L 45L, 45LS 43L 43L	45L Com 45L Com 43L Com 43L Com	H-12 H-11 H-10, H-18Y H-8 H-8	AL-11 AL-9 AL-7, ATL-8, AL-82* AL-5, ATL-4 AL-5	ARL-8 ARL-82 ARL-5 ARL-5	M-8L M-8L, M-8LX* M-8L FM-6L, FM-6LX FM-6L	
14 mm 1/2 in. 5/8 in. Hex	HOT ↑ ↓ COLD	46S, R-46S 46S, R-46S 44S, R-44S 42S, R-42S		J-18Y† J-12Y† J-9Y†	A-82* A-52* A-42* A-32*	AR-82* AR-82* AR-42* AR-32*	M-5, M-5P* FM-3	
14 mm 1/2 in.	HOT ↑ ↓ COLD	48, 48X 46, R-46 45, R-45 44, R-44 43, R-43	C-49 47 Com 46 Com 45 Com 44 Com 43 Com, C-43, CR-43 C-42-8 C-42-4 42 Com, C-42, C-42-1	UJ-12; J-11 J-8 J-7 J-6 J-5 J-2	A-11, AT-10 A-11, AT-10 A-9, AT-8 A-7, AT-8 A-5, AT-8 AT-4 A-3	AR-10 AR-10 AR-8, 4S140, AR-80 AR-8, 4S140, AR-80 AR-5, 4S165, AR-51 AR-4, AR-41 AR-31, 4S250	M-11 M-9, M-9X* M-7 M-5, M-5X* M-5 FM-3, FM-3X FM-3	14-105 14-125 14-140 14-165 14-190 14-225
18 mm Tapered Seat	HOT ↑ ↓ COLD	86T, 86TS 85T, R-85T 85TS, R-85TS 84T	84T Com C-83T	870, F-14Y† 860, F-11Y† F-10	BF-7, BF-82* BTF-6, BF-42* BTF-3	BRF-6, BRF-82* BRF-82 BRF-42	E-9 FE-4 FE-3	18-150T 18-170T 18-170T
18 mm 1/2 in. 1 1/8 in.	HOT ↑ ↓ COLD	88 86 86	88L Com, C-88L 87S Com C-86 86 Com, 86S Com C-86 85S Com 85 Com, 85R Com 83 Com, 83S Com 83 Com, 83S Com, CR-83 82 Com, 82S Com 81S Com	10 Com D-21 D-16, UD-16; D-14 D-10 D-9 D-6	BT-10 BT-8 BT-8 BT-6 BT-6 BT-4 BT-3	BR-10 BR-10 BR-8 BR-8 BR-8 BR-4	87 87 85, F-85 F-85 F-84 F-84 F-84	18-105 18-135 18-155 18-220 18-320
1 1/8 in.-18 1 1/8 in. Hex	HOT ↑ ↓ COLD	78 78S 76 74	78L Com, C-78L 78L Com, C-78L 77 Com 75 Com 73 Com	3 Com 2 Com 20 C-4 1 Com 0 Com	TT-10 TT-8 TT-8 TT-4		78 78 78 75 74	1 1/8-105 1 1/8-135 1 1/8-155 1 1/8-220 1 1/8-320
1 1/2" Pipe 1 1/2" Hex		26 26		A-25 30	F-11 F-11		TF TF	

*—Power tip plugs, for overhead valve engines only.

†—Projected Core nose types.

‡—Auxiliary Gap plugs.

*—Special gap for two-cycle engines.

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of America's most expensive
and most popular cars* were
initially equipped with Expander-type
wheel cylinder cups!

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"E" Series HRC* CUPS
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most expensive and most popular cars!★
THEY SEAL BETTER!



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EIS HRC* CUPS are safety-engineered of a new, heat-resisting compound to withstand extreme operating temperatures. And, for extra insurance, Expanders have been added to the cups for correct balance and equalized wall tension! THAT'S what makes them work better!

You'll find EIS HRC* CUPS with Expanders IN ALL
EIS Wheel Cylinders and EIS Repair Kits. Most important,
they cost no more!

† (except certain special types)

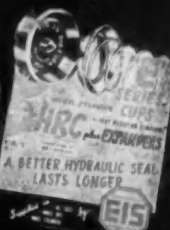
* HRC — Heat-Resisting Compound



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ment! (Illustrated)

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CHECK YOUR SPECS

TRANSMISSION RATIOS

TRANSMISSIONS MAKE AND MODEL	No. of Forward Speeds	Direct Drive on	GEAR RATIOS						Power Take-off, Opening
			Low	Second	Third	Fourth	Fifth	Reverse	
CHEVROLET									
3-Speed	3	3	2.94	1.68	1.00			2.94	No
3-Speed H. D.	3	3	3.17	1.75	1.00			3.78	No
4-Speed	4	4	7.06	3.56	1.71	1.00		6.78	R-L
5-Speed	5	5	7.41	4.05	2.40	1.48	1.00	7.85	R-L
Powermatic (a)	5	5	5.296	3.81	2.69	1.936	1.39	6.042	No
Hydra-Matic (with V-8)	4	4	3.82	2.63	1.45	1.00		4.30	No
(with L-6)	4	4	4.71	3.03	1.56	1.00		6.11	No
CLARK									
204-V	5	5	7.58	4.38	3.05	1.72	1.00	7.51	R-L
204-V0	5	4	6.08	3.50	1.80	1.00	.799	6.00	R-L
205-V	5	5	7.58	4.38	2.40	1.48	1.00	7.51	R-L
205-V0	5	4	6.08	3.50	1.91	1.00	.799	6.00	R-L
207-V0	5	4	6.06	3.50	1.80	1.00	.86	6.00	R-L
230-F	4	4	5.00	3.07	1.71	1.00		5.83	R-L
231-F	4	4	6.35	3.90	1.97	1.00		7.41	R-L
233-F	4	4	6.35	3.38	1.73	1.00		7.41	R-L
250-V	5	5	7.08	4.08	2.37	1.47	1.00	7.02	R-L
251-V0	5	4	6.06	3.50	1.90	1.00	.799	6.00	R-L
264-V	5	5	7.58	4.38	3.05	1.72	1.00	7.51	R-L
264-V0	5	4	6.08	3.50	1.80	1.00	.799	6.00	R-L
265-V-1	5	5	7.58	4.38	2.40	1.48	1.00	7.51	R-L
267-V-1	5	4	6.06	3.50	1.90	1.00	.799	6.00	R-L
267-V0-1	5	4	6.06	3.50	1.80	1.00	.86	6.00	R-L
280-V	5	5	7.88	4.41	2.63	1.48	1.00	7.88	R-L
290-V0	5	4	7.00	3.93	1.90	1.00	.788	7.00	R-L
291-V	5	5	7.00	3.93	2.34	1.54	1.00	7.00	R-L
292-V0	5	4	7.00	3.93	1.90	1.00	.86	7.00	R-L
293-V	5	5	7.88	4.68	2.84	1.68	1.00	7.88	R-L
300-V	5	5	7.87	4.41	2.63	1.48	1.00	7.87	R-L
300-V0	5	4	6.27	3.51	1.89	1.00	.80	6.27	R-L
303-V	5	5	7.87	4.68	2.84	1.68	1.00	7.87	R-L
305-V	5	5	7.01	3.93	2.34	1.49	1.00	7.01	R-L
326-V	5	5	8.05	4.34	2.80	1.67	1.00	8.05	R-L
326-V0	5	4	7.08	3.62	1.85	1.00	.788	7.08	R-L
330-F	4	4	4.88	3.09	1.73	1.00		4.88	No
334-F	4	4	4.35	2.75	1.71	1.00		3.82	No
400-V	5	5	7.83	4.82	2.54	1.47	1.00	7.83	R-L
400-V0	5	4	6.17	3.56	1.90	1.00	.79	6.02	R-L
403-V	5	5	7.83	4.82	2.67	1.56	1.00	7.83	R-L
405-V	5	5	6.17	3.56	2.11	1.43	1.00	6.02	R-L
For 10-speed models, see facing page.									
DODGE									
Own PC	3	3	2.5	1.85	1.00			3.21	No
T85E	3	3	2.49	1.59	1.00			3.15	No
T87E	3	3	3.71	1.87	1.00			4.59	No
NP-420	4	4	6.68	3.10	1.69	1.00		8.25	R
NP-540	5	5	7.41	4.05	2.40	1.48	1.00	7.85	R-L
Load Flite	3	3	2.45	1.45	1.00			2.20	No
Torgmatic (a)	6	6	5.29	3.81	2.69	1.94	1.39	6.04	R-L
FORD									
WJ-7003-D-B-G (b)	3	3	2.78	1.62	1.00			3.375	No
WAK-7003-D-B-G (b)	3	3	2.574	1.634	1.00			3.125	No
Automatics	3	3	2.40	1.47	1.00			2.00	No
FULLER—See facing page.									
FWD									
Series 271 & 371 Aux.	2	2	1.25	1.00					
Series 272 & 372 Aux.	2	2	2.82	1.00					
SPICER									
2631	3	3	3.04	1.73	1.00			1.00	No
8331 (Synchro)	3	3	3.80	1.91	1.00			4.24	No
3541	4	4	4.57	2.42	1.73	1.00		4.07	R-L
8241	4	4	6.63	3.19	1.70	1.00		7.53	R-L
8241-A	4	4	7.15	3.44	1.83	1.00		8.13	R-L
8241-B	4	4	4.32	2.67	1.68	1.00		4.90	R-L
8241-C	4	4	3.90	2.42	1.52	1.00		4.43	R-L
6440	4	3	3.90	1.88	1.00	.754		4.43	R-L
8041, 8048	4	4	6.25	3.47	1.75	1.00		6.38	R-L
8241, 8248	4	4	5.19	2.88	1.72	1.00		5.31	R-L
8440, 8445	4	3	3.67	1.85	1.00	.77		3.75	R-L
8440-A, 8445-A	4	3	3.67	1.85	1.00	.68		3.75	R-L
3152-A*	5	5	7.55	4.17	2.45	1.45	1.00	7.44	R-L
3153*	5	5	6.00	3.31	1.94	1.16	1.00	5.90	R-L
3556*	5	5	6.42	2.70	1.89	1.26	1.00	6.46	R-L
3556-A*	5	5	5.51	3.28	2.12	1.42	1.00	5.82	R-L
4652*	5	5	7.40	4.00	2.47	1.46	1.00	7.84	R-L
4652-A*	5	5	7.40	4.27	2.47	1.46	1.00	7.84	R-L
4652-B*	5	5	7.40	4.00	2.62	1.46	1.00	7.84	R-L
4652-C*	5	5	7.40	4.27	2.47	1.37	1.00	7.84	R-L
4752*	5	5	6.10	3.30	1.81	1.35	1.00	6.46	R-L
4752-A	5	5	6.10	3.52	2.03	1.20	1.00	6.46	R-L
4752-B	5	5	6.10	3.30	1.81	1.00	.77	6.46	R-L
4753*	5	5	6.10	3.30	1.81	1.00	.88	6.46	R-L
4753-A*	5	5	6.50	3.75	2.16	1.44	1.00	6.88	R-L
4756-B	5	5	6.50	3.52	1.93	1.18	1.00	6.88	R-L
4756-C	5	5	5.51	2.99	1.64	1.23	1.00	5.84	R-L
4756-A*	5	5	5.51	2.99	1.64	1.23	1.00	5.84	R-L
4852*	5	5	6.08	2.83	1.79	1.34	1.00	6.37	R-L
4852-A*	5	5	6.08	2.75	1.79	1.34	1.00	6.37	R-L
SPICER—Cont'd									
4853*	5	4	5.08	2.93	1.69	1.00	.76	5.37	R-L
4853-A*	5	4	5.08	2.83	1.51	1.00	.76	5.37	R-L
4853-B*	5	4	4.51	2.44	1.50	1.00	.84	4.77	R-L
6352*	5	5	7.31	4.09	2.41	1.44	1.00	7.33	R-L
6352-A*	5	5	7.31	4.38	2.41	1.44	1.00	7.33	R-L
6352-B*	5	5	7.31	4.38	2.71	1.61	1.00	7.33	R-L
6352-C*	5	5	7.31	4.38	2.55	1.61	1.00	7.33	R-L
6452*	5	5	6.07	3.40	1.79	1.34	1.00	6.09	R-L
6453*, 6455*	5	5	6.07	3.40	1.79	1.00	.75	6.09	R-L
6453-A*, 6455-A*	5	5	6.07	3.40	1.79	1.00	.83	6.09	R-L
6456*, 6458*	5	5	5.40	2.83	1.59	1.26	1.00	5.42	R-L
6852*, 6854*	5	5	5.08	3.05	1.78	1.33	1.00	5.10	R-L
6852-C*	5	5	5.08	2.67	1.69	1.33	1.00	5.10	R-L
6852-D*, 6854-D*	5	5	5.71	3.00	1.76	1.34	1.00	5.73	R-L
6852-E*	5	5	5.71	3.00	1.76	1.15	1.00	5.73	R-L
6852-F*, 6854-F*	5	5	5.60	2.92	1.60	1.28	1.00	5.61	R-L
6852-G*	5	5	6.70	3.52	1.97	1.17	1.00	6.72	R-L
6852-H	5	5	5.71	3.20	2.39	1.78	1.00	5.73	R-L
6852-J	5	5	6.70	3.52	1.97	1.48	1.00	6.72	R-L
6852-K	5	5	6.70	4.02	2.49	1.57	1.00	6.72	R-L
6853*, 6855*	5	5	5.08	3.05	1.78	1.00	.895	5.10	R-L
6853-A*	5	4	5.08	3.05	1.78	1.00	.76	5.10	R-L
6853-B*	5	4	5.08	3.05	1.49	1.00	.87	5.10	R-L
6853-C*	5	4	5.71	3.00	1.78	1.00	.852	5.10	R-L
6853-D*	5	4	5.08	2.66	1.49	1.00	.69	5.10	R-L
6853-E	5	4	5.08	2.66	1.49	1.00	.76	5.10	R-L
6853-F	5	4	5.08	2.66	1.68	1.00	.69	5.10	R-L
6853-G	5	4	6.70	3.52	1.97	1.00	.86	6.72	R-L
6853-H	5	4	5.08	2.64	1.68	1.00	.69	5.10	R-L
8051, 8055	5	4	6.25	3.47	1.76	1.00	.87	6.39	R-L
8051-A, 8055-A	5	4	6.25	3.47	1.75	1.00	.83	6.39	R-L
8251, 8255	5	4	4.19	2.88	1.72	1.00	.69	5.31	R-L
8251-A, 8255-A	5	4	4.19	2.88	1.72	1.00	.795	5.31	R-L
8251-B, 8255-B	5	4	4.19	2.88	1.72	1.00	.66	5.31	R-L
Auxiliaries									
5831	3	2	2.00	1.00	.73				R-L
5831-A	3	2	1.54	1.00	.73				R-L
5831-B	3	2	2.35	1.00	.85				R-L
5831-C	3	2	1.27	1.00	.85				R-L
6231	3	2	2.14	1.00	.69				(c)
6231-A	3	2	1.24	1.00	.86				(c)
6231-B, 7231-D	3	2	2.14	1.00	.86				(c)
6231-C	3	2	1.24	1.00	.69				(c)
6231-D, 7231-A	3	2	1.14	1.00	.74				(c)
6231-E, 7231-C	3	2	1.24	1.00	.74				(c)
6231-F	3	2	1.50	1.00	.86				(c)
7231-B	3	2	1.24	1.00	.86				(c)
8031-A, 8035-A	3	2	2.59	1.00	.84				(c)
8031-B, 8035-B	3	2	2.59	1.00	.79				(c)
8031-C, 8035-C	3	2	2.59	1.00	.75				(c)
8031-D, 8035-D	3	2	2.24	1.00	.84				(c)
8031-E, 8035-E	3	2	2.24	1.00	.79				(c)
8031-F, 8035-F	3	2	2.24	1.00	.75				(c)
8031-G, 8035-G	3	2	1.29	1.00	.84				(c)
8031-H, 8035-H	3	2	1.29	1.00	.79				(c)
8031-J, 8035-J	3	2	1.29	1.00	.75				(c)

Model	No. Speeds	Direct Drive In	Over Drive In	GEAR RATIOS												Installation Dimension Inches	Weight Lbs.	Control C-Forward R-Reverse	Clutch Housing Size	Oil Capacity in Pints	PTO Opening	Relative Speed PTO Gear to Input RPM	
				1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	Low Rev.	High Rev.							Right	Left
FULLER																							
4-A-86	4	4th		6.54	3.27	1.76	1.00							7.24	23 1/2	420	Cor R	1.2	17	R & L	.553	.553	
4-B-86	4	4th		5.55	3.27	1.76	1.00							6.58	23 1/2	420	Cor R	1.2	17	R & L	.553	.553	
4-A-960	4	3rd	4th	3.72	1.86	1.00	(a)							4.12	23 1/2	420	Cor R	1.2	17	R & L	.913	.973	
4-A-112	4	4th		6.54	3.27	1.76	1.00							6.49	25 1/2	525	F or R	1.2	21	R & L	.553	.387	
4-A-112 Opt.	4	4th		6.54	3.08	1.76	1.00							5.06	25 1/2	525	F or R	1.2	21	R & L	.553	.387	
4-F-1440	4	3rd	4th	3.08	1.78	1.00	.80							3.06	31 1/2	775	F or R	1	24	R & L	.815	.544	
4-MS-1440	4	3rd	4th	1.98	1.40	1.00	.71							1.61	722	F or R		24	R & L	.92	.795		
4-MB-1440	4	3rd	4th	2.72	1.58	1.00	.71							2.72	722	F or R		24	R & L	.92	.613		
5-A-33	5	5th		7.52	4.30	2.52	1.41	1.00						7.37	20 1/2	210	Cor R	2.3-4	11	R	.271		
5-A-330	5	5th	5th	6.08	3.48	1.80	1.00	.77						5.96	20 1/2	210	Cor R	2.3-4	11	R	.336		
5-B-33	5	5th		7.53	4.30	2.52	1.42	1.00						7.37	20 1/2	218	Cor R	2.3-4	11	R	.485	.485	
5-B-330	5	5th		6.10	3.48	1.785	1.00	.768						5.96	20 1/2	218	Cor R	2.3-4	11	R	.575	.575	
5-A-43	5	5th		8.03	4.61	2.46	1.41	1.00						8.00	4.71b	22 1/2	330	Cor R	1.2, 3	16	R & L	.444	.215
5-A-430	5	4th	8th	6.52	3.33	1.77	1.00	.771						6.50	3.33b	22 1/2	330	Cor R	1.2, 3	16	R & L	.848	.288
5-A-62	5	5th		8.06	4.67	2.62	1.38	1.00						8.12	4.74b	24 1/2	370	Cor R	1.2, 3	24	R & L	.429	.429
5-A-620	5	5th	8th	7.07	3.50	1.72	1.00	.78						7.11	3.55b	24 1/2	370	Cor R	1.2, 3	24	R & L	.489	.489
5-A-65	5	5th		8.06	4.67	2.62	(c)	1.00						8.12	4.74b	24 1/2	411	F or R	1.2	24	R & L	.429	.429
5-A-650	5	4th	5th	6.37	3.40	1.74	1.00	.788						6.40	3.35b	24 1/2	411	F or R	1.2	24	R & L	.543	.543
5-C-65	5	5th		8.06	4.67	2.62	(c)	1.00						8.12	4.74b	24 1/2	411	Cor R	1.2	24	R & L	.429	.429
5-C-650	5	4th	5th	6.37	3.40	1.74	1.00	.788						6.40	3.35b	24 1/2	411	Cor R	1.2	24	R & L	.543	.543
5-C-72	5	5th		7.33	4.43	2.62	(c)	1.00						7.33		25 1/2	465	Cor R	1.2	24	R & L	.429	.229
5-C-720	5	4th	5th	6.37	3.40	1.74	1.00	(e)						6.42		25 1/2	465	Cor R	1.2	24	R & L	.543	.291
5-A-1120	5	4th	5th	6.54	3.27	1.78	1.00	.744						6.49		31 1/2	687	F or R	1	25	R & L	.553	.387
5-A-1120 Opt.	5	4th	5th	6.54	3.08	1.76	1.00	.636						5.06		31 1/2	687	F or R	1	25	R & L	.553	.387
5-F-1220	5	4th	5th	6.54	3.356	1.748	1.00	.744						5.06		31 1/2	687	F or R	1	25	R & L	.553	.387
5-F-1220 Opt.	5	4th	5th	6.54	3.356	1.748	1.00	.636						6.49		31 1/2	687	F or R	1	25	R & L	.553	.387
10-FA-65	10	10th		18.567	10.731	6.02	3.17	2.298	8.08	4.67	2.62	1.38	1.00	18.658	8.12	39 1/2	786	F or R	1.2	31	R & L	.429	.429
10-FA-65 Opt.	10	10th		18.567	10.731	6.02	3.17	2.298	8.08	4.67	2.62	1.38	1.00	18.658	8.12	39 1/2	786	F or R	1.2	31	R & L	.429	.429
10-FA-650	10	9th	10th	14.638	7.822	3.993	2.298	1.61	8.37	3.404	1.738	1.00	.768	14.707	6.40	39 1/2	786	F or R	1.2	31	R & L	.543	.543
10-FB-65	10	10th		10.608	6.08	3.13	4.67	3.44	2.62	2.219	1.69	1.313	1.00	10.681	8.12	39 1/2	786	F or R	1.2	31	R & L	.429	.429
10-FB-65 Opt.	10	10th		10.608	6.08	3.13	4.67	3.44	2.62	2.219	1.69	1.313	1.00	10.681	8.12	39 1/2	786	F or R	1.2	31	R & L	.429	.429
10-FB-650	10	9th	10th	8.364	6.37	4.489	3.404	2.282	1.738	1.313	1.034	1.00	.788	8.403	6.40	39 1/2	786	F or R	1.2	31	R & L	.543	.543
10-CA-65	10	10th		18.567	10.731	6.02	3.17	2.298	8.08	4.67	2.62	1.38	1.00	18.658	8.12	39 1/2	786	Cor R	1.2	31	R & L	.429	.429
10-CA-65 Opt.	10	10th		18.567	10.731	6.02	3.17	2.298	8.08	4.67	2.62	1.38	1.00	18.658	8.12	39 1/2	786	Cor R	1.2	31	R & L	.429	.429
10-CA-650	10	9th	10th	14.638	7.822	3.993	2.298	1.61	8.37	3.404	1.738	1.00	.768	14.707	6.40	39 1/2	786	Cor R	1.2	31	R & L	.543	.543
10-CB-65	10	10th		10.608	6.08	3.13	4.67	3.44	2.62	2.219	1.69	1.313	1.00	10.681	8.12	39 1/2	786	Cor R	1.2	31	R & L	.429	.429
10-CB-65 Opt.	10	10th		10.608	6.08	3.13	4.67	3.44	2.62	2.219	1.69	1.313	1.00	10.681	8.12	39 1/2	786	Cor R	1.2	31	R & L	.429	.429
10-CB-650	10	9th	10th	8.364	6.37	4.489	3.404	2.282	1.738	1.313	1.034	1.00	.788	8.403	6.40	39 1/2	786	Cor R	1.2	31	R & L	.543	.543
10-A-1120	10	9th	10th	15.04	7.82	4.05	2.30	1.711	6.54	3.27	1.76	1.00	.744	14.93	6.40	43 1/2	960	F or R	1.2	35	R & L	.553	.302
10-A-1120 Opt.	10	9th	10th	15.04	7.82	4.05	2.30	1.482	6.54	3.27	1.76	1.00	.636	11.64	5.06	43 1/2	960	F or R	1.2	35	R & L	.553	.387
10-B-1120	10	8th	9-10	8.59	6.54	4.04	3.08	2.31	1.76	1.31	1.00	.835	.636	8.82	6.40	43 1/2	960	F or R	1.2	35	R & L	.553	.302
10-B-1120 Opt.	10	8th	9-10	8.59	6.54	4.04	3.08	2.31	1.76	1.31	1.00	.878	.744	8.64	5.06	43 1/2	960	F or R	1.2	35	R & L	.553	.387
R-1220	10	7th	9-10	6.529	4.67	3.923	2.985	2.296	1.748	1.313	1.00	.835	.636	5.029	3.83	43 1/2	962	F or R	1	35	R & L	.553	.387
R-35	7	7th		8.20	5.18	3.30	2.42	1.79	1.33	1.00				7.63		26 1/2	375	Cor R	2.3	16	R & L	.488	.217
R-35 Opt.	7	7th		7.62	4.82	3.06	2.25	1.67	1.24	1.00				7.63		26 1/2	375	Cor R	2.3	16	R & L	.525	.233
R-63	10	10th		9.90	7.62	4.95	4.61	3.63	2.73	2.10	1.64	1.27	1.00	11.54	3.18	37 1/2	657	Cor R	1.2	30	R & L	.628	.628
R-630-D	10	9th	10th	7.63	6.96	4.61	3.63	2.83	2.10	1.64	1.27	1.00	.78	11.54	3.18	37 1/2	657	Cor R	1.2	30	R & L	.628	.628
R-46	8	8th		9.78	6.98	4.99	3.68	2.86	1.90	1.36	1.00			11.01	2.99	29 1/2	467	F or R	2.3	17	R & L	.71	.71
R-46 Opt.	8	8th		9.15	6.53	4.67	3.68	2.49	1.78	1.27	1.00			10.30	2.80	29 1/2	467	F or R	2.3	17	R & L	.76	.76
R-68	10	10th		9.65	7.43	5.80	4.48	3.54	2.73	2.10	1.64	1.27	1.00	11.28	3.18	38 1/2	787	Cor R	1.2	33	R & L	.628	.628
R-680	10	9th	10th	7.43	6.80	4.48	3.54	2.73	2.10	1.64	1.27	1.00	.78	11.28	3.18	38 1/2	787	Cor R	1.2	33	R & L	.628	.628
R-1550	9	8th	9th	9.24	6.91	4.94	3.53	2.82	1.96	1.40	1.00	.89		9.56	3.11	1350	F or R	1	60	R & L	.74	.60	
R-1150	9	8th	9th	9.20	6.88	4.94	3.55	2.59	1.94	1.39	1.00	.75		11.78	3.21	43 1/2	1015	F or R	1	38	R & L	.698	.503
UR	2	1, R		1.00										1.00		14 1/2	182		1.2, 3	8			
UR 1.63	2	2nd		1.63	1.00											14 1/2	182		1.2, 3	8			
AR	2	1, R		1.00										1.00		11 1/2	120	R		8			
AR 1.63	2	2nd																					

Army Transportation Reserve Units Are Supported by Trucking Industry

LISTED HERE are U. S. Army Transportation Corps Highway Reserve units throughout the country. Many of them are manned with trucking company employees.

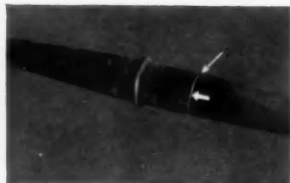
Information about these units may be obtained from the sponsoring groups or from the American Trucking Associations, Inc., 1424 16th St., N. W., Washington 6, D. C.



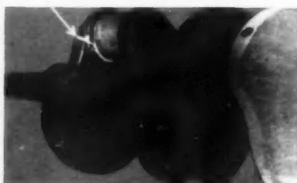
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COMMANDS: 425th Highway Transport Command, Oak Park, Ill.; 432d Highway Transport Command (Massachusetts Motor Truck Assn.); 435th Highway Transport Command (D. C. Trucking Assn.)

ALABAMA: 828th Truck Battalion (Alabama Trucking Assn.)

ARIZONA: 210th Heavy Truck Company (Arizona Motor Transport Assn.)

CALIFORNIA: 349th Truck Group (Los Angeles Transportation Club); 820th Truck Battalion (California Trucking Assn., Inc.); 828th Light Truck Company (Kern County Div., Motor Truck Assn.); 677th Medium Truck Cargo Company (Oregon-Nevada-California Fast Freight)

COLORADO: 815th Truck Battalion (Colorado Motor Carriers Assn.)

CONNECTICUT: 309th Truck Battalion, 158th Light Truck Company, 778rd Medium Petroleum Company, 618th Medium Truck Company (S-P) (Motor Transport Assn. of Connecticut)

DISTRICT OF COLUMBIA: 337th Truck Group; 434th Truck Battalion (D. C. Trucking Assn.)

GEORGIA: 357th Truck Group, 766th Medium Cargo Truck Company, (Motor Vehicle Assn. of Georgia)

MARYLAND: 358th Truck Group; 1021st Medium Cargo Truck Company, (Maryland Motor Truck Assn.); 641st Medium Cargo Truck Company (Deliveries Inc.); 649th Medium Cargo Truck Company (W. T. Cowan, Inc.); 687th Truck Company (D. C. Trucking Assn.)

MASSACHUSETTS: 338th Truck Group, 438th Truck Battalion (Massachusetts Motor Truck Assn.); 642d Medium Truck Company (S-P) (Youlden, Smith and Hopkins)

NEBRASKA: 172d Medium Cargo Truck Company (Nebraska Motor Carriers Assn.)

NEW YORK: 750th Medium Truck Company (S-P) (5th Avenue Coach Co. and New York City Omnibus Corp.); 133rd Light Truck Company, 920th Medium Truck Company (S-P) (Consolidated Edison Co.)

NORTH CAROLINA: 812th Truck Battalion, 227th Medium Cargo Truck Company (North Carolina Motor Carriers Assn.)

OHIO: 762d Medium Cargo Truck Company (Ohio Trucking Assn.)

OKLAHOMA: 348th Truck Group (Associated Motor Carriers of Oklahoma City)

PENNSYLVANIA: 436th Truck Battalion, 629th Medium Cargo Truck Company, 630th Medium Cargo Truck Company, 924th Medium Cargo Truck Company (Pennsylvania Motor Truck Assn.)

SOUTH CAROLINA: 229th Light Truck Company (Motor Transportation Assn. of South Carolina)

TENNESSEE: 339th Truck Group, 637th Medium Cargo Truck Company, 639th Medium Cargo Truck Company, 845th Medium Cargo Truck Company (Tennessee Motor Transport Assn.)

UTAH: 443rd Light Truck Company (Utah Motor Transport Assn.)

VERMONT: 663rd Light Truck Company (Vermont Truck and Bus Assn.)

VIRGINIA: 370th Medium Cargo Truck Company (Virginia Highway Users Assn.)

WASHINGTON: 732d Medium Cargo Company (Hogland Transfer Co.)

WISCONSIN: 369th Truck Battalion (Leicht Transfer and Storage)

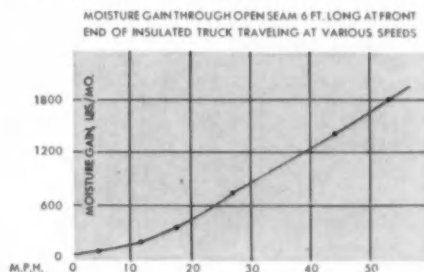
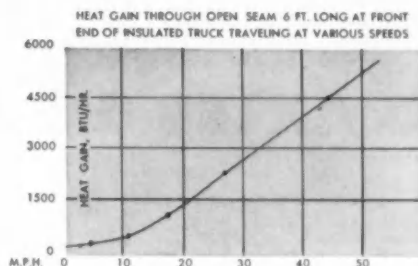
How to maintain temperature in a refrigerated truck body

Studies of insulated truck bodies and cargo trailers show that air infiltration through the outer shell and moisture pickup in the insulation reduce thermal efficiency considerably. In fact, they can add to the total heat load up to 50% and more, making it impossible to hold proper temperatures. In addition, the extra weight of accumulated water and ice can greatly increase operating costs and cut down on payload. Thus it's imperative that adequate air infiltration resistance be built into the body by sealing the outer shell.

To guard against air infiltration in a truck with complex interior framing, first caulk, backcoat, or undercoat all seams and holes in the outer surfaces. Barrier film should be applied against the outer surfaces of the walls if the interior framing is not complex. Film should also be applied over the metal framing in walls and roof and between the insulation and inner liner in the floor.

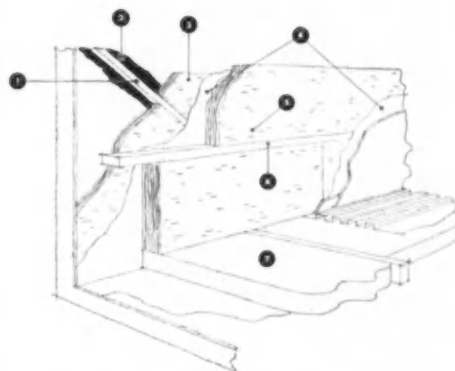
Actually, the greater number of air barriers used, the better your protection will be. Suggested barrier films include tough plastic sheet, heavy aluminum foil, heavy kraft-asphalt paper, and preferably plastic-kraft paper or plastic-foil kraft paper laminates.

By effectively sealing out air and moisture, you get more efficient, economical performance from the insulation. In the walls, Fiberglas*, applied with a vapor seal, keeps heat gain to a minimum without taking up valuable space or adding appreciably to body weight. In the floor and roof, new, foamed plastic Armstrong Armalite (plain or self-extinguishing types) supplies vital load-bearing strength along with high efficiency. A free, new booklet gives full details on sealing truck bodies and cargo trailers plus information on Fiberglas, Armalite, and the complete line of Armstrong insulations for refrigerated bodies. For your copy, write Armstrong Cork Company, 3004 Rugby Street, Lancaster, Pennsylvania.



These curves indicate heat gain and moisture gain through a seam 6 feet long and .045 inch wide in both the inner and outer shell of the front wall of a body 7 feet wide and 7 feet high. Between the shells is 6" of glass fiber insulation, unprotected in any manner against air infiltration. Outside conditions were assumed to be 100° F. with 60% relative humidity. The body operated at 0° F.

In the moisture gain curve, it's obvious that the body would not be operating at the conditions outlined at a continuous speed for one month. The data show the cumulative effect of hauls over a period of time.



body sealing where interior framing is complex

- 1. Metal framing • 2. Back coating (barrier film, if possible) • 3. Fiberglas between framing • 4. Barrier film • 5. Fiberglas • 6. Wood framing • 7. Armstrong Armalite.

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* T. M. REG. U. S. PAT. OFF. OCF CORP.



CHECK YOUR SPECS

3RD AXLES & TRAILER SUSPENSIONS

THIRD AXLE MAKE AND MODEL and Truck Model Adapted to	Capacity (Lb.) See Explanatory Notes	Weight (Lb.) with Max. Tires, Frame Extension, Etc.	Maximum Tire Size	LOAD DIS- TRIBUTION RANGE		AXLE DATA				BRAKES (Standard)				Number of Points of Frame Support	Spring Size or Number Leaves Added	Spindle Diameter (at inner bearing)
				(First figure or combination applies to center axle; second figure to third axle)		Make	Type	Size	Axis Spacing (In.) (with max. tires)	Make and Type	Drum Material	Brake Diameter and Width	Lining Area			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Trailing Axles																
FABCO (Trailing and Pusher)																
1250 (All makes)	14000	2000	9.00/20	56-44	.....	Var	T	4 1/2	48 1/2	H	CA	15x4	254	2	53x2 1/2	2 1/2
1250 (All makes)	14000	2200	9.00/20	56-44	.....	Var	T	4 1/2	48 1/2	M	CA	16 1/2 x5	325	2	53x2 1/2	2 1/2
1000 (All makes)	14000	3000	11.00/20	56-44	.....	Var	T	4 1/2	48 1/2	M	CA	16 1/2 x5	325	2	56x3	3
1000 (All makes)	14000	3000	11.00/22	56-44	.....	Var	T	4 1/2	52	M	CH	16 1/2 x6	435	2	60x3	3
1000 (All makes)	18000	3000	11.00/22	56-44	.....	Var	T	4 1/2	52	M	CH	Var	Var	2	60x3	3
*Tractor Special, Pusher (All Makes)	14000	1600	11.00/22	53-65	.....	Var	T	4 1/2	Var	M	Var	Var	Var	2	Var	3
FRUEHAUF TONNAGE MASTER																
A	18000	2990	11.00/22	50-50	.....	Frue	I	3 1/2 x45 1/2	Var	Tim	Var	16 1/2 x7	440	2	Var	3 1/2
B	18000	2990	11.00/22	50-50	.....	Frue	T	5	Var	Tim	Var	16 1/2 x7	440	2	Var	3 1/2
MUTCHENS																
H-100T (truck & trailer)††	.....	949**	11.00/22	50-50	52-48	Var	Var	Var	50	Var	Var	Var	Var	6	43 1/2	.....
H-200T (truck & trailer)††	.....	782**	11.00/22	50-50	54-48	Var	Var	Var	50	Var	Var	Var	Var	6	43 1/2 x3	.....
H-200WS (truck & trailer)††	.....	1113**	11.00/22	50-50	50-50	Var	Var	Var	108	Var	Var	Var	Var	8	43 1/2 x3	.....
H-300T (truck & trailer)††	.....	796**	11.00/22	50-50	54-48	Var	Var	Var	50	Var	Var	Var	Var	6	43 1/2 x3	.....
H-700T (truck & trailer)††	.....	680**	11.00/22	50-50	54-48	Var	Var	Var	49	Var	Var	Var	Var	6	42 1/2 x3	.....
H-700TUS (truck & trailer)††	.....	694**	11.00/22	50-50	54-48	Var	Var	Var	49	Var	Var	Var	Var	6	42 1/2 x3	.....
H-700WS (truck & trailer)††	.....	992**	11.00/22	50-50	50-50	Var	Var	Var	108	Var	Var	Var	Var	6	42 1/2 x3	.....
H-700OT (truck & trailer)	.....	715**	11.00/22	50-50	54-48	Var	Var	Var	49	Var	Var	Var	Var	6	42 1/2 x3	.....
H-900 (trailer)	.....	850**	11.00/22	50-50	50-50	Var	Var	Var	48	Var	Var	Var	Var	2	61 1/2 x5	.....
LITTLE GIANT																
A	11000	1920	8.25/20	53-47	42	Own (g)	Sq	2 1/4	42	Wag H	CA	15x4	253.5	2	42x2 1/2	2 1/2
B	13000	2450	9.00/20	50-50	44	Own (g)	Sq	3	44	Wag H	CA	16x4	270.7	2	44x3	2 1/2
C	15000	2850	10.00/20	50-50	44	Own (g)	Sq	3 1/4	44	Wag HA	CA	16x5	338	2	44x3 1/2	3 1/2
MAXI CORP. "MAXI"																
15	13000	1800	7.50/20	55-45	.....	Var	T	4 1/2	45	Var	Var	Var	Var	1	45x3 1/2	Var
15	13000	1800	8.25/20	55-45	.....	Var	T	4 1/2	45	Var	Var	Var	Var	1	45x3 1/2	Var
15	13000	1800	9.00/20	55-45	.....	Var	T	4 1/2	45	Var	Var	Var	Var	1	45x3 1/2	Var
15	15000	1800	8.25/20	55-45	.....	Var	T	4 1/2	45	Var	Var	Var	Var	1	45x3 1/2	Var
15	15000	1800	9.00/20	55-45	.....	Var	T	4 1/2	45	Var	Var	Var	Var	1	45x3 1/2	Var
15	15000	1800	10.00/20	55-45	.....	Var	T	4 1/2	45	Var	Var	Var	Var	1	45x3 1/2	Var
20	18000	2100	10.00/20	57-48	.....	Var	T	5	48	Var	Var	Var	Var	1	48x3 1/2	Var
20	18000	2100	10.00/22	52-48	.....	Var	T	5	48	Var	Var	Var	Var	1	48x3 1/2	Var
20	18000	2100	11.00/20	52-48	.....	Var	T	5	48	Var	Var	Var	Var	1	48x3 1/2	Var
20	18000	2100	11.00/22	52-48	.....	Var	T	5	48	Var	Var	Var	Var	1	48x3 1/2	Var
20	20000	2250	11.00/20	57-48	.....	Var	T	5	48	Var	Var	Var	Var	1	48x3 1/2	Var
20	20000	2250	11.00/22	52-48	.....	Var	T	5	48	Var	Var	Var	Var	1	48x3 1/2	Var
NEWAY																
TA-800 (Trailing)	18000	300**	11.00/22	48-48	50-50	Var	Var	Var	48-50	Var	Var	Var	Var	4	.....	Var
TP-500 (Pusher)	9000	1000**	11.00/22	33-67	.....	Own	Spec	Var	50	Var	Var	Var	Var	6	.....	2 1/2
REYCO																
17214-1 (For any 1 1/2-3 ton truck)	14000	861**	11.00/22	50-50	52-48	Var	Var	Var	50 1/4	Var	Var	Var	Var	6	43 1/2 x3	.....
21218-1 (For any 3 1/2-5 ton truck)	18000	915**	11.00/22	50-50	52-48	Var	Var	Var	51	Var	Var	Var	Var	6	43 1/2 x3	.....
21218-4 (For any 3 1/2-5 ton truck)	18000	800**	11.00/22	40-50	52-48	Var	Var	Var	51	Var	Var	Var	Var	6	43 1/2 x3	.....
17222-1 (For trucks over 5 tons)	22000	1077**	11.00/22	50-50	52-48	Var	Var	Var	50 1/4	Var	Var	Var	Var	6	43 1/2 x3	.....
SUPER LOAD BOOSTER (Pusher)**																
LB20 (C, D, F, V 1 1/2 & 2 ton)	13000	2650	8.25/20	50-50	.....	Own	T	4 1/2	48	VH	CA	15x4	251	2	48x3 1/2	2 1/2
LB 30 (F Ford F700 & F750)	16000	2820	9.00/20	50-50	.....	Own	T	5	48	VH	CA	16x5	345	2	48x3 1/2	3 1/2
LB 30 (D, V 1 1/2 & 2 ton)	15000	2820	9.00/20	50-50	.....	Own	T	4 1/2	48	VH	CA	15x4	251	2	48x3 1/2	3
LB 34 (D, F, V 3 ton)	17000	3280	10.00/20	50-50	.....	Own	T	5	48	VH or A	CA	16x5	345	2	48x3 1/2	3 1/2
LB 40 (D, F, V 3 1/2 ton)	20000	3480	11.00/20	50-50	.....	Own	T	5	48	VH or A	CA	16x6	370	2	48x3 1/2	3 1/2
TANDEM TRAC (Pusher)																
F-PD Light trucks	14000	1130**	9.00/20	38-62	50-50	Var	T	4 1/2	50	H	CA	15x4	236	2	(y)	2 1/2
F-PD Medium trucks	14000	1130**	9.00/20	38-62	50-50	Var	T	4 1/2	50	H	CA	16x5	315	2	(y)	2 1/2
F-PD Medium trucks	14000	1130**	9.00/20	38-62	50-50	Var	T	4 1/2	50	MA	CA	16 1/2 x5	380	2	(y)	2 1/2
F-PD Heavy trucks	18000	1130**	10.00/20	38-62	50-50	Var	T	5	50	H	CA	16x5	315	2	(y)	3 1/2
F-PD Heavy trucks	18000	1130**	10.00/20	38-62	50-50	Var	T	5	50	MA	CA	16 1/2 x5	380	2	(y)	3 1/2

Column 1.—**—C—Chevrolet, D—Dodge,
F—Ford, V—Various.
†—13,000 lb. axle available in 68.1 and
69.5 truck.

†—Radius rod from drive axle to frame.
††—Single tire used on pusher axle only.
†††—17,000 lb. axle available in 71.5 truck.
Column 2.—Not to be confused with the
total capacity on the converted vehicle.

Column 3.—Weight of third axle unit in-
cludes all appurtenances and maximum tires.
*—Does not include axle.
**—Without frames, wheels, axles, etc.
*—Does not include axle, but includes

weight transfer system and radius rods where
applicable.

Column 7
Chev—Chevrolet
Shu—Shuler
Column 8
D—Driving
Re—Rectangular
SF—Standard Forge
Column 11
A—Air
B—Bendix

Timken
Wag—Wagner Hi-Tork
S—Solid round
Sq—Square
T—Tubular
C—Chevrolet
F—Ford

H—Hydraulic
L—Lockheed
M—Mechanical
O—Own
Column 12
C—Cast Iron
CA—Cast Alloy Iron

††—On application.
†††—Long dip-plate joint supplied for drive
axle in place of radius rods.

(b)—52 1/4 x 5 1/4.
(f)—Optional equipment.
(g)—Round, square or I-sectional axles.
(h)—Available with hand or electric cab-
operated hydraulic pump for transferring

axle load for added traction or for raising
axle clear of ground.

(j)—Truckstell 4 in. I-section drop center
rated 10,000 lb. for 4 1/2 in. tube axle.

(k)—Light, steel housing walking beam.

(n)—Truckstell 4 1/2 in. I-section drop
center rated 20,000 lb. for 5 in. tube axle.

(y)—Tandem Trac provides suspension for
both axles with a new type of two-stage
proportional springing with ample range
from no-load to overload conditions.
Var—Various
(1)—A—16 1/2 x5 1/2
(3)—A—16 1/2 x5
Column 14.—Attachment unit only.

THIRD AXLE MAKE AND MODEL and Truck Model Adapted to	Capacity (Lb.) See Explanatory Notes		Maximum Tire Size	LOAD DIS- TRIBUTION RANGE (First figure or combination applies to center axle; second figure to third axle)		AXLE DATA				BRAKES (Standard)				Number of Points of Frame Support	Spring Size or Number Leaves Added	Semi-Diameter (at inner bearing)
	Weight (Lb.) Tires, Frame Extension Etc.	Tires, Frame Extension Etc.		5	6	Make	Type	Size	Axle Spacing (In.) (with max. tires)	Make and Type	Drum Material	Brake Diameter and Width	Lining Area			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Trailing Axles—cont'd																
TANDEM TRAC (Trailing Axles)																
F-DT Light trucks	14000	1130**	9.00/20	62-38	50-50	Var	T	4 1/2	50	H	CA	15x4	236	2	(y)	2 1/4
F-DT Medium trucks	14000	1130**	9.00/20	62-38	50-50	Var	T	4 1/2	50	H	CA	16x5	315	2	(y)	2 1/4
F-DT Medium trucks	14000	1130**	9.00/20	62-38	50-50	Var	T	4 1/2	50	MA	CA	16 1/2x5	380	2	(y)	2 1/4
F-DT Heavy trucks	18000	1130**	10.00/20	62-38	50-50	Var	T	5	50	H	CA	16x5	315	2	(y)	3 1/4
F-DT Heavy trucks	18000	1130**	10.00/20	62-38	50-50	Var	T	5	50	MA	CA	16 1/2x5	380	2	(y)	3 1/4
TRUCKSTELL (Pusher)																
Hydro-Trac Single Tire*	11000	665*	11.00/20	65-35	80-20h	Var	T	4 1/2	50	Var	Var	Var	Var	4	28x3 1/4	Var
Chief-Ton Single Tire*	11000	545*	11.00/20	65-35	65-35	Var	T	4 1/2	50	Var	Var	Var	Var	4	28x3 1/4	Var
Hydro-Trac Dual Tire	14000	680*	9.00/20	50-50	60-40h	Var	T	4 1/2	50	Var	Var	Var	Var	4	28x3 1/4	Var
Chief-Ton Dual Tire	14000	560*	9.00/20	50-50	55-45	Var	T	4 1/2	50	Var	Var	Var	Var	4	28x3 1/4	Var
Hydro-Trac Dual Tire	18000	680*	10.00/20	50-50	60-40h	Var	T	5h	50	Var	Var	Var	Var	4	28x3 1/4	Var
Chief-Ton Dual Tire	18000	560*	10.00/20	50-50	55-45	Var	T	5h	50	Var	Var	Var	Var	4	28x3 1/4	Var
Hydro-Trac Dual Tire	20000	680*	11.00/20	50-50	60-40h	Var	T	5h	50	Var	Var	Var	Var	4	28x3 1/4	Var
Chief-Ton Dual Tire	20000	560*	11.00/20	50-50	55-45	Var	T	5h	50	Var	Var	Var	Var	4	28x3 1/4	Var
TRUCKSTELL (Trailing Axle)																
Hydro-Trac Dual Tire	14000	605*	9.00/20	50-50	60-40h	Var	T	4 1/2	50	Var	Var	Var	Var	4	28x3 1/4	Var
Chief-Ton Dual Tire	14000	490*	9.00/20	50-50	55-45	Var	T	4 1/2	50	Var	Var	Var	Var	4	28x3 1/4	Var
Hydro-Trac Dual Tire	18000	605*	10.00/20	50-50	60-40h	Var	T	5	50	Var	Var	Var	Var	4	28x3 1/4	Var
Chief-Ton Dual Tire	18000	490*	10.00/20	50-50	55-45	Var	T	5	50	Var	Var	Var	Var	4	28x3 1/4	Var
Hydro-Trac Dual Tire	20000	605*	11.00/20	50-50	60-40h	Var	T	5	50	Var	Var	Var	Var	4	28x3 1/4	Var
Chief-Ton Dual Tire	20000	490*	11.00/20	50-50	55-45	Var	T	5	50	Var	Var	Var	Var	4	28x3 1/4	Var
TRUCKTOR (x)																
U. N. (Universal heavy duty)	18000	2480	11.00/20	50-50		Var	T	5	50	WAM	CA	16 1/2x6	451	6	40x3	2 1/4
UN-14	14000	1900	9.00/20	50-50		Var	T	4 1/2	49	Var	Var	Var	Var	6	44x2 1/2	2 1/4
UN-18	18000	2100	11.00/20	50-50		Var	T	5	50	Var	Var	Var	Var	6	44x3	3 1/4
UN-20	20000	2420	11.00/24	50-50		Var	T	5	52	Var	Var	Var	Var	6	44x3	3 1/4
UTILITY																
25	9000	1410	8.25/20	55-45		Own	Sq	2 1/2	41	HV or A	CA	16x3 1/2	230	4	None	2 1/4
30	16500	2080	10.00/20	55-45	67-33	Own	Sq	3	44	HV or A	CA	16x5	300	4	None	2 1/4
35	20500	2525	11.00/24	55-45	67-33	Own	Sq	3 1/2	50	HV or A	CA	17x6	420	4	None	3
30S	16500	2410	10.00/20	55-45	67-33	Own	Sq	3	44	HV or A	CA	16x5	300	4	40x3	2 1/4
35S	20500	2920	11.00/24	55-45	67-33	Own	Sq	3 1/2	50	HV or A	CA	17x6	420	4	40x3	3
31	18000	1960	11.00/22	55-45	67-33	Var	T	5	50	V or A	CA	16 1/2x7	454	4	None	3 1/4
Driving Axles																
FABCO																
1550 (Ford, Chevrolet)	15000	2600	9.00/20	50-50		Ford	D		48 1/2	FH	CA	15x5	312	2	53x2 1/2	3
1550 (All other makes)	15000	2600	9.00/20	50-50		Match	D		48 1/2	Match	CA	Match	Var	2	53x2 1/2	3
2000 (F750 Ford)	15000	3200	10.00/20	50-50		Ford	D		48 1/2	FH	CA	15x5	312	2	56x3	3
2000 (F800, F900 Ford)	17000	3600	10.00/20	50-50		Ford	D		48 1/2	H or A	CA	16x5	Var	2	56x3	3
2000 (All other makes)	20000	4000	11.00/20	50-50		Match	D		48 1/2	H or A	CA	Var	Var	2	56x3	Var
THORNTON DRIVE																
A2C30 Chevrolet 2 ton	15000	3600	8.25/20	50-50		Eat	D	4 1/2	52 1/2	VH	CA	15x4	251	2	48x2 1/2	3
A9D30 Dodge FA, HA, JA	13000	3300	8.25/20	50-50		Dodge	D	4 1/2	48	VH	CA	16x3	251	2	48x2 1/2	2 1/4
A2 Various	13000	3300	8.25/20	50-50		Eat	D	4 1/2	48	VH	CA	15x4	251	2	48x2 1/2	2 1/4
A2F30 Ford F500 & F600	13000	3300	8.25/20	50-50		Ford	D	4 1/2	48	VH	CA	15x4	251	2	48x2 1/2	2 1/4
A6F36 Ford F700 & F750	15000	3600	9.00/20	50-50		Eat	D	4 1/2	52 1/2	VH	CA	15x4	251	2	48x2 1/2	3
A6 Various	15000	3600	9.00/20	50-50		Eat	D	4 1/2	52 1/2	VH	CA	15x4	251	2	48x2 1/2	3
A6D35	15000	3600	9.00/20	50-50		Eat	D	4 1/2	52 1/2	VH	CA	15x4	251	2	48x2 1/2	3
A15F41 Ford F800	17000	3700	10.00/20	50-50		Ford	D	5 1/2	52 1/2	VH or A	CA	16x5	345	2	48x2 1/2	3 1/4
A15 Various	17000	3700	10.00/20	50-50		Eat	D	5 1/2	52 1/2	VH or A	CA	16x5	345	2	48x2 1/2	3 1/4
A14F41 Ford F800	17000	3800	10.00/20	50-50		Ford	D	5 1/2	52 1/2	VH or A	CA	16x5	345	2	48x2 1/2	3 1/4
A14 Various	17000	3800	10.00/20	50-50		Eat	D	5 1/2	52 1/2	VH or A	CA	16x5	345	2	48x2 1/2	3 1/4
TRUCKSTELL																
300 Ford F500	11000	7400	8.25/20	50-50		Ford	D	3 1/2-3 1/2	50	VFH	CA	14 1/2x3 1/2		2	65x2 1/2	2 1/4
300 Ford F600	13000	7600	8.25/20	50-50		Ford	D	3 1/2-4 1/4	50	VFH	CA	15x4		2	65x2 1/2	2 1/4
300 Chevrolet	13000	7800	8.25/20	50-50		Chev.	D	4	50	VCH	CA	15x4	251	2	65x2 1/2	2 1/4
300 Dodge B4J	13500	7800	8.25/20	50-50		Dodge	D	4 1/2	50	VDH	C	15x4	252	2	65x2 1/2	
400 Ford F700 & F750	15000	9200	9.00/20	50-50		Ford	D	4 1/2	50	VFH	CA	15x5	312	2	60x3	3
400 Dodge B4K	15000	9200	9.00/20	50-50		Dodge	D	Re	50	VDH	C		252	2	60x3	
500 Dodge B4R	15000	9300	9.00/20	50-50		Dodge	D	Re	50	VDH	C	16 1/2x3 1/2	217	2	60x3	
500 Ford F800	17000	10300	10.00/20	50-50		Ford	D	5 1/2	50	VFH or A	CA	16x5(1)	Var	2	60x3	3 1/4
500 Chevrolet 90 & 1000	18000	10300	10.00/20	50-50		Chev.	D	5 1/2	50	VFH or A	CA	16x5(1)	Var	2	60x3	3 1/4
500 Dodge B4T	17000	10300	10.00/20	50-50		Dodge	D	Re	50	VDH or A	C	16 1/2x(2)	Var	2	60x3	
500 Ford F900	21000	10900	10.00/20	50-50		Ford	D	5 1/2	50	VFH or A	CA	16x6(3)	Var	2	60x3	3 1/4
Trailer Suspensions																
HUTCHENS																
H-100S (All makes)††	18000	445**	11.00/22			Var	Var	Var		Var	Var	Var	Var	4	43 1/2x3	
H-200S (All makes)††	18000	350**	11.00/22			Var	Var	Var		Var	Var	Var	Var	4	43 1/2x3	
H-200SOL (All makes)††	21000	434**	11.00/22			Var	Var	Var		Var	Var	Var	Var	4	43 1/2x3	
H-300S (All makes)††	18000	362**	11.00/22			Var	Var	Var		Var	Var	Var	Var	4	43 1/2x3	
H-600 (All makes)††		1230**	11.00/22	50-50	54-46	Var	Var	Var	50	Var	Var	Var	Var	8	43 1/2x3	
H-700S (All makes)††	18000	334**	11.00/22			Var	Var	Var		Var	Var	Var	Var	4	42 1/2x3	
H-700SUS (All makes)††	18000	334**	11.00/22			Var	Var	Var		Var	Var	Var	Var	4	42 1/2x3	
H-700SOL (All makes)††	21000	413**	11.00/22			Var	Var	Var		Var	Var	Var	Var	4	42 1/2x3	
H-700-3 axle (All makes)††		1046**	11.00/22	50-50	54-46	Var	Var	Var	50	Var	Var	Var	Var	8	42 1/2x3	
H-700T (All makes)	36000	715**	11.00/22	50-50	54-46	Var	Var	Var	49	Var	Var	Var	Var	6	42 1/2x3	
H-800 (All makes)	36000	850**	11.00/22	50-50	50-50	Var	Var	Var	48	Var	Var	Var	Var	2	61 1/2x5	
100T (All makes)	36000	850	11.00/22	50-50	50-50	Var	Var	Var	48	Var	Var	Var	Var	2	61 1/2x5	
200T (All makes)	36000	790	11.00/22	50-50	50-50	Var	Var	Var	48	Var	Var	Var	Var	2	61 1/2x5	

3rd Axles & Trailer Suspensions

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MAKE AND MODEL	Capacity (Lb.) See Explanatory Notes	Weight (Lb.) with Max. Tire, Frame Extension, Etc.	Maximum Tire Size	LOAD DIS- TRIBUTION RANGE		AXLE DATA				BRAKES (Standard)				Number of Points of Frame Support	Spring Size or Number Leaves Added	Spindle Diameter (at inner bearing)
				First figure or combination applies to center axle; second figure to third axle		Make	Type	Size	Axle Spacing (in.) (with max. tire)	Make and Type	Drum Material	Brake Diameter and Width	Lining Area			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Trailer Suspensions—continued																
HUTCHENS (Continued)																
300T (All makes)	36000	810	11.00/22	50-50	50-50	Var	Var	Var	48	Var	Var	Var	Var	2	61½x5	
700T (All makes)	36000	870	11.00/22	50-50	50-50	Var	Var	Var	48	Var	Var	Var	Var	2	61½x5	
NEWAY																
426 (two spring tandem)	26000	650	12.00/20	50-50		Var	Var	Var	44-44½	Var	Var	Var	Var	2		Var
432 (two spring tandem)	34000	780	12.00/20	50-50		Var	Var	Var	48-48½	Var	Var	Var	Var	2		Var
436 (two spring tandem)	36000	790	12.00/20	50-50		Var	Var	Var	48-48½	Var	Var	Var	Var	2		Var
442 (two spring tandem)	42000	900	12.00/20	50-50		Var	Var	Var	48-48½	Var	Var	Var	Var	2		Var
536 (two spring tandem)	36000	900	12.00/20	50-50		Var	Var	Var	50½-51½	Var	Var	Var	Var	2		Var
542 (two spring tandem)	42000	925	12.00/24	50-50		Var	Var	Var	50½-51½	Var	Var	Var	Var	2		Var
550 (HD) (two spring tandem)	50000	1005	12.00/24	50-50		Var	Var	Var	50½-51½	Var	Var	Var	Var	2		Var
560 (HD) (two spring tandem)	60000	1155	12.00/24	50-50		Var	Var	Var	53-53½	Var	Var	Var	Var	2		Var
TL-636 (four spring tandem)	36000	690	12.00/24	50-50		Var	Var	Var	50½	Var	Var	Var	Var	6		Var
TL-644 (four spring tandem)	44000	690	12.00/24	50-50		Var	Var	Var	50½	Var	Var	Var	Var	6		Var
TL-650 (four spring tandem)	50000	690	12.00/24	50-50		Var	Var	Var	50½	Var	Var	Var	Var	6		Var
SL-618 (single axle)	18000	335	Var			Var	Var	Var		Var	Var	Var	Var	4		Var
SL-622 (single axle)	22000	335	Var			Var	Var	Var		Var	Var	Var	Var	4		Var
SL-625 (single axle)	25000	335	Var			Var	Var	Var		Var	Var	Var	Var	4		Var
SL-718 (single axle)	18000	430	Var			Var	Var	Var		Var	Var	Var	Var	4		Var
SL-722 (single axle)	22000	430	Var			Var	Var	Var		Var	Var	Var	Var	4		Var
SL-725 (single axle)	25000	430	Var			Var	Var	Var		Var	Var	Var	Var	4		Var
AR-2000 (tandem air suspension)	36000	770	11.00/22	50-50		Var	Var	Var	50-50	Var	Var	Var	Var	General Air	Spring	
T-6750 (three axle)	75000	1300	Var	50-50	50-50	Var	Var	Var	50-50	Var	Var	Var	Var	8		Var
WB (four axle walking beam)	100000	2300	Var	50-50	50-50	Var	Var	Var	40-45-45	Var	Var	Var	Var	8		Var
WB-40 (walking beam tandem)	40000	840	Var	50-50		Var	Var	Var	Var	Var	Var	Var	Var	2		Var
WB-50 (walking beam tandem)	50000	850	Var	50-50		Var	Var	Var	Var	Var	Var	Var	Var	2		Var
WB-60 (walking beam tandem)	60000	949	Var	50-50		Var	Var	Var	Var	Var	Var	Var	Var	2		Var
WB-70 (walking beam tandem)	70000	1050	Var	50-50		Var	Var	Var	Var	Var	Var	Var	Var	2		Var
NN-660 (widespread tandem)	40000	775	11.00/22	50-50		Var	Var	Var	74	Var	Var	Var	Var	4		Var
NN-860 (widespread tandem)	40000	815	11.00/22	50-50		Var	Var	Var	110	Var	Var	Var	Var	4		Var
NN-1060 (widespread tandem)	40000	950	11.00/22	50-50		Var	Var	Var	116	Var	Var	Var	Var	4		Var
NN-1160 (widespread tandem)	40000	1050	11.00/22	50-50		Var	Var	Var	128	Var	Var	Var	Var	4		Var
NN-900 (widespread tandem)	40000	1600	11.00/22	50-50		Var	Var	Var	110	Var	Var	Var	Var	4		Var
SB-360 (spring beam tandem)	36000	710	Var	50-50		Var	Var	Var	49½	Var	Var	Var	Var	2		Var
SB-500 (spring beam tandem)	50000	710	Var	50-50		Var	Var	Var	49½	Var	Var	Var	Var	2		Var
SB-600 (spring beam tandem)	60000	745	Var	50-50		Var	Var	Var	(b)	Var	Var	Var	Var	2		Var
T-6544-A (three axles)	50000	1045	Var	50-50	50-50	Var	Var	Var	44½	Var	Var	Var	Var	8		Var
T-6644-A (three axles)	60000	1170	Var	50-50	50-50	Var	Var	Var	44½	Var	Var	Var	Var	8		Var
T-6500-A (three axles)	50000	1165	Var	50-50	50-50	Var	Var	Var	50½	Var	Var	Var	Var	8		Var
T-6800-A (three axles)	60000	1260	Var	50-50	50-50	Var	Var	Var	50½	Var	Var	Var	Var	8		Var
T-6750-A (three axles)	75000	1390	Var	50-50	50-50	Var	Var	Var	50½	Var	Var	Var	Var	8		Var
REYCO																
30118-1 (Single)	18000	326**	11.00/22			Var	Var	Var		Var	Var	Var	Var	4	42½x3	Var
30118-3 (Single)	18000	337**	11.00/22			Var	Var	Var		Var	Var	Var	Var	4	42½x3	Var
17114-1 or 3 (Single)	14000	415**	11.00/22			Var	Var	Var		Var	Var	Var	Var	4	43½x3	Var
21118-1 or 3 (Single)	18000	404**	11.00/22			Var	Var	Var		Var	Var	Var	Var	4	43½x3	Var
21118-1 US (Single for Low Boy)	18000	454**	11.00/22			Var	Var	Var		Var	Var	Var	Var	4	43½x3	Var
17122-1 or 3 (Single)	22000	517**	11.00/22			Var	Var	Var		Var	Var	Var	Var	4	51½x3	Var
1300-25 (Single)	25000	565**	11.00/22			Var	Var	Var		Var	Var	Var	Var	4	44x3	Var
17214-1 (Tandem)	28000	881**	11.00/22	50-50	52-48	Var	Var	Var	50½	Var	Var	Var	Var	6	43½x3	Var
21218-1 (Challenge Tandem)	36000	823**	11.00/22	50-50	50-50	Var	Var	Var	51	Var	Var	Var	Var	6	43½x3	Var
21218-3 (Reycloastic Bearing)	36000	860**	11.00/22	50-50	50-50	Var	Var	Var	51	Var	Var	Var	Var	6	43½x3	Var
21218-5 (Reycloastic Bearing)	36000	847**	11.00/22	50-50	50-50	Var	Var	Var	51	Var	Var	Var	Var	6	43½x3	Var
21218-148, -348 A, B, & C	36000	815**	11.00/22	50-50	50-50	Var	Var	Var	48	Var	Var	Var	Var	6	41½x3	Var
21218-1 US (Tandem for Low Boy)	36000	849**	11.00/22	50-50	50-50	Var	Var	Var	51	Var	Var	Var	Var	6	43½x3	Var
21218-ABW (For End Dump Trlr.)	36000	872**	11.00/22	50-50	50-50	Var	Var	Var	50½	Var	Var	Var	Var	6	43½x3	Var
17222-1 (Heavy Duty Tandem)	44000	1077**	11.00/22	50-50	52-48	Var	Var	Var	50½	Var	Var	Var	Var	6	43½x3	Var
24218-1 (Tand. Lg.-Boy 127-74 in.)	36000	1037**	11.00/22	50-50	50-50	Var	Var	Var	110	Var	Var	Var	Var	6	43½x3	Var
30218-1 (Champion Tandem)	36000	862**	11.00/22	50-50	50-50	Var	Var	Var	48½	Var	Var	Var	Var	6	42½x3	Var
30218-3 (Champion Tandem)	36000	678**	11.00/22	50-50	50-50	Var	Var	Var	48½	Var	Var	Var	Var	6	42½x3	Var
17318-1 or 3 (Tri-Axle)	54000	1430**	11.00/22			Var	Var	Var	50½	Var	Var	Var	Var	8	43½x3	Var
21318-1 or 3 (Tri-Axle)	54000	1255**	11.00/22			Var	Var	Var	51	Var	Var	Var	Var	8	43½x3	Var
30318-1 or 3 (Tri-Axle)	54000	1060**	11.00/22			Var	Var	Var	48½	Var	Var	Var	Var	8	42½x3	Var
SIX WHEELS INC.																
2-15	26000	2300	8.25/20	50-50		Var	T	4½	45	Var	Var	Var	Var	1	45x3½	Var
2-15	26000	2300	9.00/20	50-50		Var	T	4½	45	Var	Var	Var	Var	1	45x3½	Var
2-15	26000	2300	10.00/20	50-50		Var	T	4½	45	Var	Var	Var	Var	1	45x3½	Var
2-15	32000	2450	9.00/20	50-50		Var	T	4½	45	Var	Var	Var	Var	1	45x3½	Var
2-15	32000	2450	10.00/20	50-50		Var	T	4½	45	Var	Var	Var	Var	1	45x3½	Var
2-20	36000	2600	10.00/20	50-50		Var	T	5	48	Var	Var	Var	Var	1	48x3½	Var
2-20	36000	2600	10.00/22	50-50		Var	T	5	48	Var	Var	Var	Var	1	48x3½	Var
2-20	50000	2850	10.00/22	50-50		Var	T	5	48	Var	Var	Var	Var	1	48x3½	Var
2-20	50000	2850	10.00/22	50-50		Var	T	5	48	Var	Var	Var	Var	1	48x3½	Var
2-20	50000	2850	11.00/20	50-50		Var	T	5	48	Var	Var	Var	Var	1	48x3½	Var
2-20	50000	2850	11.00/22	50-50		Var	T	5	48	Var	Var	Var	Var	1	48x3½	Var
SUPER LOAD BOOSTER																
LB34	34000			50-50		Var	Var	Var	48	Var	Var	Var	Var	2	48x3½	Var
TANDEM TRAC																
F-TT (All makes)	36000	1130**	11.00/22	50-50		Var	Var	Var	50	MA or VA	CA	Var	Var	2	(y)	Var
TRUCTOR																
T-18 (Single)	18000		11.00/20			Tim	T	5		MA	CA	16½x7	512	4	56	
T-20 (Single)	20000		11.00/22			Tim	T	5½		MA	CA	1847	450	4	56	
T-25 (Single)	25000		12.00/24			Tim	T	6		MA	CA	1847	450	4	56	
TT-16 (Tandem)	32000		10.00/20	50-50		Tim	T	5	50	MA	CA	16½x8	438	6	45½	
TT-18 (Tandem)	36000		11.00/20	50-50		Tim	T	5	50	MA	CA	16½x8	438	6	45½	
T-16 (Tandem air suspension)	32000		10.00/20	50-50		Tim	T	5	50	MA	CA	16½x8	438	General Air	Spring	
TT-16 (Tandem air suspension)	36000		11.00/20	50-50		Tim	T	5	50	MA	CA	16½x8	438	General Air	Spring	
TT-18 (Tandem air suspension)	36000		11.00/20	50-50		Tim	T	5	50	MA	CA	16½x8	438	General Air	Spring	
TT-16 (Tandem spread axles)	38000	3550	11.00/20	50-50		Tim	T	5	108½	MA	CA	16½x8	438	6	45½	

FAST DELIVERY!



Johnson Freight Lines, of Nashville, Tennessee, operates a fleet of rugged steel "CubeKing" Fruehauf Truck Bodies.

Merchants Fast Motor Lines, of Dallas, Texas, operates a large fleet of handsome aluminum Fruehauf Cargo☆Stars.



TRUCK OWNERS find there are five big advantages in going to Fruehauf for steel or aluminum van bodies:

- Fast mounting - immediate delivery**
- Low initial cost - and low upkeep**
- Countless optional features - at low cost**
- Complete replacement assemblies - save expense**
- High quality - rugged construction**

Fruehauf has been the first name in truck bodies from coast to coast for nearly a decade—because no one else can offer so much for so little. Rugged,

low-priced steel Fruehauf "CubeKing" Bodies and handsome, economical aluminum Fruehauf "Cargo☆Star" units are hard at work in hundreds of well-known fleets, because Fruehauf sells more quality and optional features per dollar and provides more follow-up service, such as fast mounting and painting, lettering, washing, and repair facilities, and immediately available replacement assemblies at any time.

When you need either a husky steel or economical aluminum body of any length, with any door combination, call Fruehauf first—and avoid delay in delivery, enjoy immediate hauling profits!



FRUEHAUF TRAILER COMPANY

Truck Body Division

10952 Harper Avenue

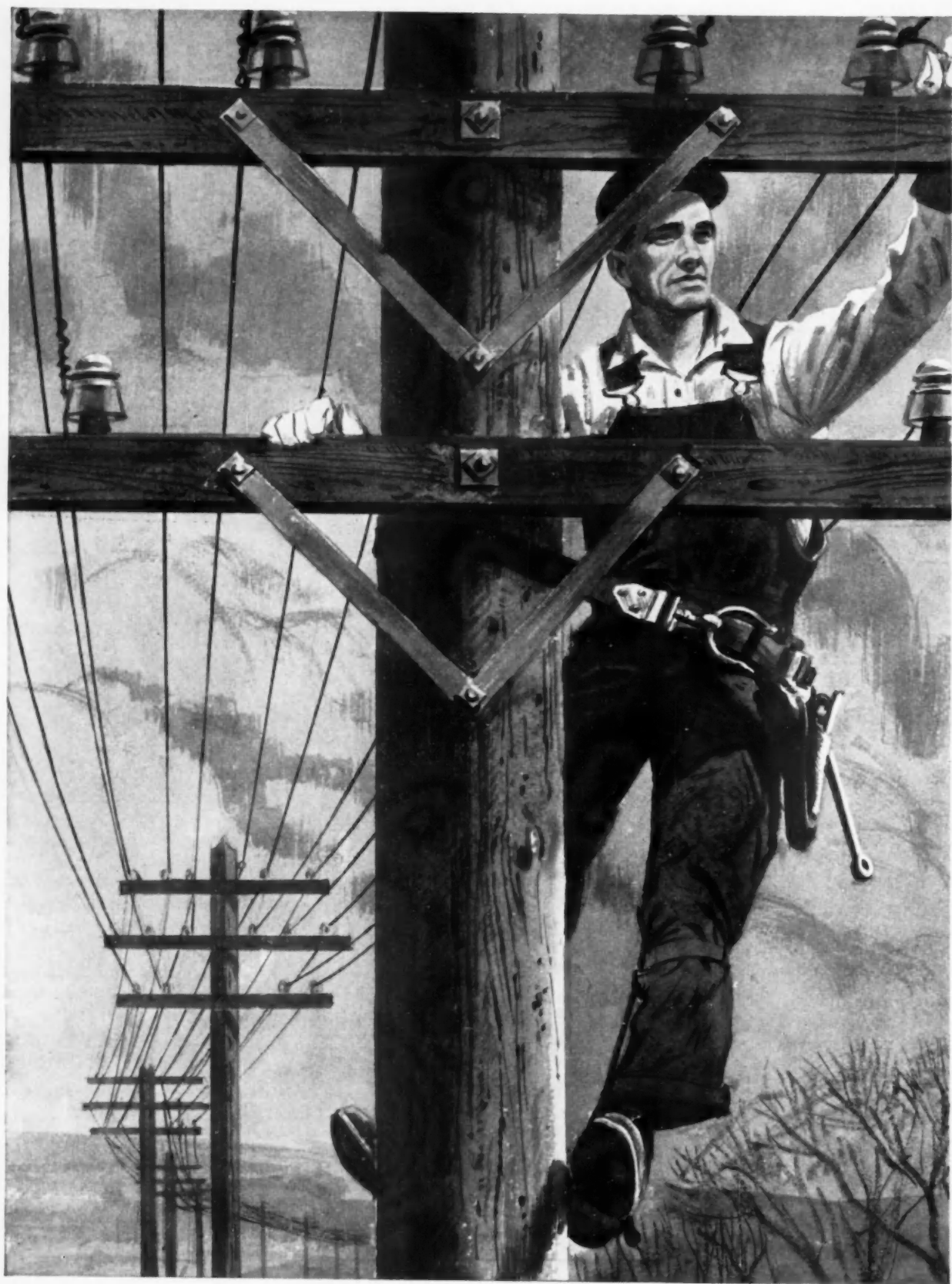
Detroit 32, Michigan

SEND FULL FACTS, WITHOUT OBLIGATION, ON UNITS CHECKED:

CubeKing

Cargo☆Star

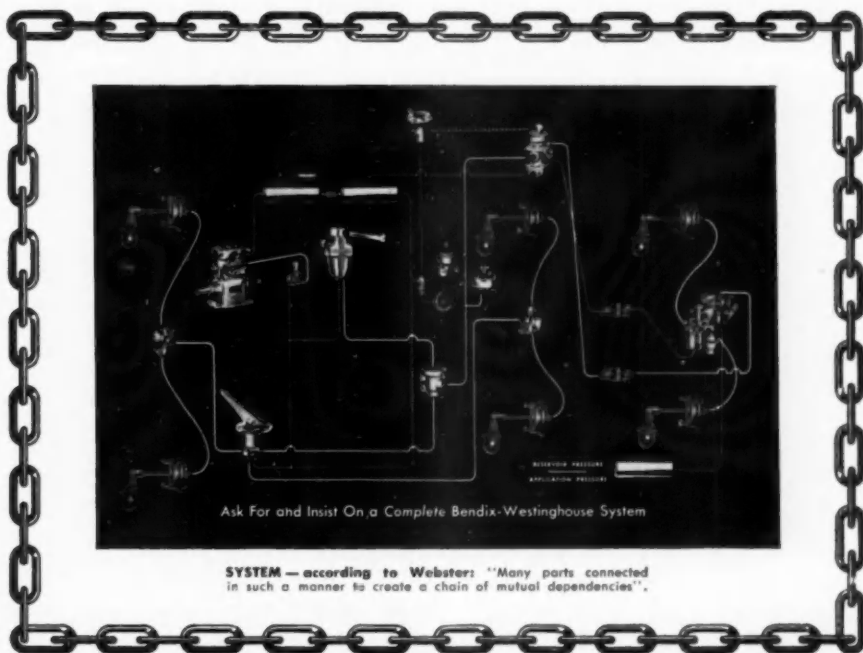
NAME _____
 COMPANY _____
 ADDRESS _____
 CITY _____ STATE _____



Dependable systems demand systems planning and engineering

It's true with communications systems and it's equally true with air brakes. For peak performance, both systems depend upon operating compatibility of a wide variety of precise and inter-related devices. In *any* system you can, of course, buy one component here, another component there, but to get the most efficient, most reliable, most economical performance you need a *complete* chain of components, or devices, each system-engineered to do a specific task with predetermined accuracy.

You buy such a chain when you specify *complete* Bendix-Westinghouse Air Brake Systems for your vehicles. You get top performance for a longer period and at lower over-all cost. It's one more reason why it pays to specify Bendix-Westinghouse Air Brakes . . . *complete* air brake systems for which we accept full and complete responsibility. Fleet operators know this. And that is why more vehicles travel more miles with Bendix-Westinghouse Air Brakes than with all other air brakes combined.



SYSTEM — according to Webster: "Many parts connected in such a manner as to create a chain of mutual dependencies".

Bendix-Westinghouse



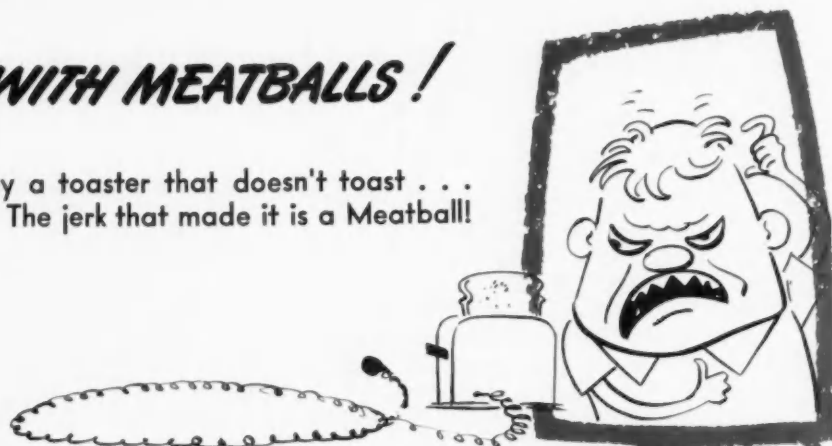
AUTOMOTIVE AIR BRAKE COMPANY

General offices and factory—Elyria, Ohio. Branches—Berkeley, Calif. and Oklahoma City, Okla.

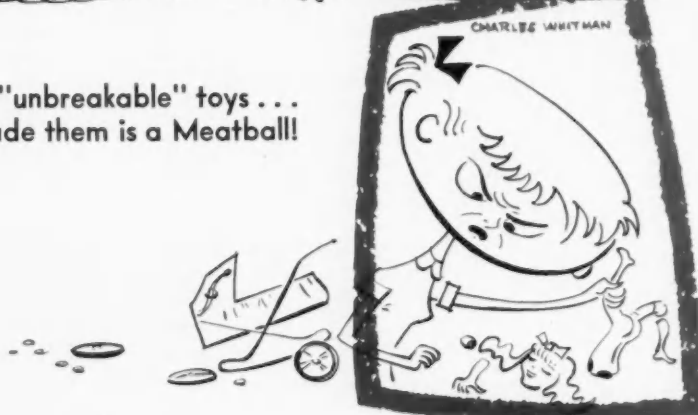
CCJ BULLETIN BOARD

DOWN WITH MEATBALLS!

When you buy a toaster that doesn't toast . . .
The jerk that made it is a Meatball!



When your kids break their "unbreakable" toys . . .
The clown who made them is a Meatball!



When you get your TV set repaired—
and two days later: Phtt! . . .
That so-called repairman is a Meatball! too.



But YOU are the guy who never goofs.
You know what to do, and you do it right.
You follow the specs; you work with care,
You never give the boss gray hair.
You never say: "It's good enough!" . . .
Or dodge a job that's kinda rough.
You're a Top Mechanic it's plain to see—

Aw, come on now, chum, let's keep this true.
There are times when YOU are a Meatball! too.

PROOF on a dipstick

HASTINGS

keeps oil clean

Prove it for yourself in your own trucks. Hastings *does* keep oil clean from filter change to filter change.* Oil shows clean on the dipstick of an engine with a Hastings Oil Filter Cartridge, right up to the recommended filter replacement time. Other dipsticks may show dirty oil . . . a sign of trouble ahead, because dirt is an abrasive—and abrasives cause wear.

The difference is DENSITE, an entirely different filtering material. Millions upon millions of selected, pressure-packed cotton fibres absorb dirt far beyond the capacity of ordinary filters.

Use Hastings Oil Filter Cartridges for every filter change. It pays off in longer engine life—better engine performance—fewer service requirements!



When replaced as normally recommended. Proved by tests conducted under supervision of Pittsburgh Testing Laboratories, in accordance with U. S. Bureau of Standards procedure.



HASTINGS MANUFACTURING COMPANY • HASTINGS, MICHIGAN

Filters, Piston Rings, Cams, Spark Plugs

These are **TORQUE WRENCHES** used and recommended by leading engine builders because they are:

- ★ Accurate For Life
- ★ Faster and Handier to use
- ★ The only torque wrenches that can be used accurately with adapters and extensions
- ★ Guaranteed accurate within 2% of maximum scale reading
- ★ Ruggedly constructed for continuous service

SENSORY MODELS

CATALOG
NUMBER

CAPACITY
INCH POUNDS

MECHANICS
SUGGESTED
NET PRICE

The handle RELEASES momentarily the instant the pre-set torque is reached. Can be set to signal for right or left hand applications over full scale range. You can change setting instantly right on the job. A sharp distinct sound can be heard at the same moment the handle signal is felt or you can see the torque applied on an Easy Vision metal scale which serves as a built in Torque Tester. FEEL IT - HEAR IT - SEE IT.

\$300-I
\$600-I
\$1200-I
\$1800-I
\$2400-I
\$3600-I

0 to 300
0 to 600
0 to 1200
0 to 1800
0 to 2400
0 to 3600


\$35.20
36.90
38.85
47.95
61.80
82.30

FOOT POUNDS

\$25
\$50
\$100
\$150
\$200
\$300

0 to 25
0 to 50
0 to 100
0 to 150
0 to 200
0 to 300

35.20
36.90
38.85
47.95
61.80
82.30

STANDARD MODELS		CATALOG NUMBER	CAPACITY INCH POUNDS	MECHANICS SUGGESTED NET PRICE
 <p>The same as the Sensory model, but is not equipped with the signalling feature. A deluxe gauge tool that is guaranteed to remain accurate for life and is engineered to cycle a minimum 300,000 times.</p>	F300-I	0 to 300	\$24.30	
	F400-I	0 to 600	27.15	
	F1200-I	0 to 1200	29.95	
	F1800-I	0 to 1800	35.70	
	F2400-I	0 to 2400	53.95	
	F3600-I	0 to 3600	68.70	
	FOOT POUNDS			
	F25	0 to 25	24.30	
	F50	0 to 50	27.15	
	F100	0 to 100	29.95	
F150	0 to 150	35.70		
F200	0 to 200	53.95		
F300	0 to 300	68.70		

ROUND BEAM MODELS

A torque wrench designed and priced for the mechanic. Guaranteed life time accuracy. Each model in the wide range of torque capacities is light weight and compact in design. The torque accuracy is held to the highest standard 2% of the maximum scale reading. Patented handle allows using these with adapters and rugged constructing makes them almost indestructible.

CATALOG NUMBER

CAPACITY INCH POUNDS

MECHANICS SUGGESTED NET PRICE

DR25-I
DR50-I
DR100-I
DR200-I
DR300-I
R600-I
R1200-I
R1800-I
R2400-I

0 to 25
0 to 50
0 to 100
0 to 200
0 to 300
0 to 600
0 to 1200
0 to 1800
0 to 2400

\$17.95
17.95
17.95
17.95
17.95
12.35
13.15
16.75
17.95

FOOT POUNDS

DR25
R50
R100
R150
R200

0 to 25
0 to 50
0 to 100
0 to 150
0 to 200

17.95
12.35
13.15
16.75
17.95

SPRING TESTER



Permits fast and accurate matching and checking of valve springs, clutch springs, etc. Threaded column with vernier scale permits adjustment of test platform to exact test length within .003 of an inch. Built in tone signal device sounds the instant spring is compressed to desired length. Operated by any accurate torque wrench. Spring strength, in pounds, equals the foot-pound reading of the torque wrench.

Free TORQUE SPECIFICATIONS

For over 130 makes and more than 1200 models of automobiles (U.S. and Foreign), trucks, tractors, outboards, motorcycles, diesel, aircraft, marine and small air-cooled engines. SPARK PLUG-WHEEL BEARING-VALVE SPRING DATA and many helpful torque tips . . . Plus handy torque chart for all screws -No. 4 to and including large 2 inch bolts. 31 pages of factory approved information. Sent Free if requested on your auto service letter or bill head. Please also write name of your local tool jobber.



Write to Dept. 600

PA **STURTEVANT CO.**
ADDISON **QUALITY** ILLINOIS

World's Leading Exclusive Manufacturers of Torque Wrenches



TRAINING

MANUALS FOR MAINTENANCE TRAINING

Axles, Springs, Wheels	298
Brakes	298
Clutches, Transmissions ...	300
Cooling Systems	302
Electrical, Ignition	306
Engines	310
Fuels, Lubrication	316
Tires	318
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MAINTENANCE FILMS FOR MECHANIC TRAINING

Brakes	330
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SECTION

5



CHECK YOUR KNOW HOW

MANUALS FOR MAINTENANCE

A WELL TRAINED mechanic does a better job in less time. One way to have well trained mechanics is to provide them with good maintenance literature.

The Chilton Company's Book Division has many maintenance books and manuals of interest to fleetmen. A complete list is in your February '59 issue of CCJ. See page 112 for complete listings.

The following pages contain brief descriptions of manuals, folders, charts and booklets on a variety of specific subjects. Many are provided free of charge. Some of the more complete publications are available at a nominal charge. Addresses of the manufacturers offering them are given here for your convenience in ordering.

Effort has been made to select a broad enough listing so you'll be able to choose manuals to fit your fleet operation. A word of warning, however. In a few cases, old stand-bys are in limited supply or no longer available. You may have to borrow them from a neighboring fleetman.

The list is arranged under the following headings to speed your finding specific information quickly:

Subject	Begins on page
Axles, Springs, Wheels	298
Brakes	298
Clutches, Transmissions	300
Cooling Systems	302
Electrical, Ignition	306
Engines	310
Fuels, Lubricants	316
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Axles, Springs and Wheels

Eaton Handbooks—Various bulletins describing service and maintenance procedure on Eaton two-speed axles, two-speed axles with electric shift controls, Model No. 36M tandem-drive axles, electric shift for Timken two-speed axles. Requests should indicate information desired and model number of unit. Free—

Sales Promotion Manager, Axle Division, Eaton Mfg. Co., Cleveland 10, Ohio.

Serviceman's Guide, Causes and Prevention of Axle Shaft Failures—Tells how to avoid axle "weariness failures" and how to spot trouble before it starts. Free—U. S. Axle Co., Inc., Water St., Pottstown, Pa.

Timken-Detroit Field Service Bulletins—Various bulletins describing assembly, maintenance, lubrication, brake service, etc., on Timken-Detroit axles. Requests should include information desired and model number of unit. Free—Technical Publications Manager, Service Engineering Dept., Timken-Detroit Axle Division, Rockwell Spring and Axle Co., Detroit 32, Mich.

Timken-Detroit Wall Chart—Illustrates and describes adjustment and assembly of Timken-Detroit hypoid helical two-speed, double-reduction drive units. Free—address as above.

Tips on Spring Service and Inspection—29 pages—Covers leaf spring technical data briefly, including construction, lubrication, adjustment and maintenance. Each 25c.—Leaf Spring Institute, 1220 Keith Bldg., Cleveland 15, Ohio.

Trucktor General Air Spring Tandem Service Instructions, No. 4—5 pages—Covers maintenance, operation and lubrication of the Trucktor General Air Spring tandem axle. Free—Sales Dept., The Trucktor Corp., 1137 Route 22, Mountainside, N. J.

Truck Rim Identification and Operating Manual—39 pages—Illustrates and describes various types of truck wheel rims and dual wheel construction. Includes tire mounting and demounting instructions with a special section on rim accidents. Free—from members of the National Wheel and Rim Assn. For name of closest member, write the association at 208 West St. Clair Ave., Cleveland 13, Ohio.

Wheel and Steering Alignment Technical Manual—Manual covering complete data on wheel and steering alignment. Each \$2.00—John Bean Division, Food Machinery & Chemical Corp., 1305 Cedar St., Lansing 4, Mich.

Principles of Wheel Alignment—53 pages—Thorough coverage with many diagrams of wheel alignment, including caster, camber, toe-in, king pin inclination, steering troubles, wheel balance, rear wheel and drag link alignment. Each \$1.00—Bear Mfg. Co., Rock Island, Ill.

Brakes

Brakes and How They Work—72 pages—Comprehensive text on basic brake operation. In addition to elements of brake operation, it covers fundamentals of mechanical, hydraulic, air and vacuum systems. One of the best available. Free—Advertising Dept., American Brakeblok Division, American Brake Shoe Co., 4600 Merritt Ave., Detroit 9, Mich.

Quick Reference Brake Service Guide—68 pages—In handy size, a manual that covers adjustment of all major brake types plus a host of service tips. Free—address as above.

Air Brakes, Operation and Maintenance, No. 5057—Wall chart with comprehensive operation, maintenance and trouble shooting data on air brakes. Fully illustrated. Free—Sales Promotion Dept., Bendix-Westinghouse Automotive Air Brake Co., Elyria, Ohio.

Fundamentals of Brakes, Compressed Air and Compressed Air Brakes, No. 5060A—12 pages—Well illustrated and easily understood description of air brake operation. Free—address as above.

Delco Brake Service Manual—Covers brake service, maintenance and care of Delco brakes. Free—United Motors System, Division of General Motors Corp., 3044 West Grand Blvd., Detroit 2, Mich.

TRAINING

Grey-Rock Brake Service Manual—60 pages—Description of parts and operation of major brake systems and makes. Includes assembly, service and maintenance procedures for brakes and related components. Each \$3.00—Advertising Dept., Grey Rock Division, Raybestos - Manhattan, Inc., Manheim, Pa.

More for Your Dollar in Longer Brake Block and Drum Life—Brief manual listing nine ways to extend brake service life. Free—Grizzly Mfg. Division, 700 West Caroline St., Paulding, Ohio.

Johns - Manville Brake Reliner's Manual—90 pages—Description of parts and operation of major brake systems and makes designed for passenger car and light truck fleets. Includes assembly, service and maintenance procedures for brakes and related components. Free—Friction Materials Dept., Industrial Products Division, Johns-Manville Sales Corp., 1617 Pennsylvania Blvd., Philadelphia 3, Pa.

Johns-Manville Fleet Reliners Manual—80 pages—Training manual for operation, inspection and maintenance of bus, truck and trailer brake and brake control systems especially designed for fleet use. Free—address as above.

Raybestos Brake Service Guide for Fleets—43 pages—Comprehensive, well illustrated manual on brake service on all type brakes. Has a special section on air system maintenance. Free—Advertising Dept., Raybestos Division, Raybestos-Manhattan, Inc., Bridgeport 2, Conn.

Fleet Trouble-Shooting Brake Chart for Vehicles with Air Brakes—Wall chart with a complete outline of where to look for the cause of trouble. Free—address as above.

Modern Brakes—30 pages—Description of parts and operation of major

brake systems and makes. Includes service, maintenance and trouble shooting data for brakes and related components. Free—The Russell Mfg. Co., Middletown, Conn.

Thermoid Brake Service Reference Book—Description of parts and operation of major brake systems and makes. Includes assembly, service and maintenance procedures for brakes and related components. Free—Automotive Replacement Division, Thermoid Co., Trenton, N. J.

Wagner Hydraulic Brake Service Guide, No. HU-411—8 pages—Presents an outline for use in hydraulic brake service and repair, including a trouble shooting guide. Free—Sales Promotion Manager, Wagner Electric Corp., Automotive Division, 6400 Plymouth Ave., St. Louis 14, Mo.

Warner Electric Brake Service Manual, No. 3203—64 pages—Complete description of operation, maintenance, installation of Warner electric brake

(TURN TO NEXT PAGE, PLEASE)

WHAT FLEET OPERATORS THINK ABOUT ENGINE GOVERNORS

Fleet operators were asked for their views on engine governors. Here are some of their remarks.



• "Governors save on maintenance and fuel."

• "Protects the driver, also the vehicle."



• "Drivers run the engine too fast in lower gear without governor control."

• "Couldn't stay in business without them."



• "We would not do without governors."

• Fleets that have had experience with governors specify them on any new vehicles to be purchased.



Investigate the money-saving advantages Handy Governors provide.

8260



KING-SEELEY CORPORATION
ANN ARBOR, MICHIGAN

WORLD'S LARGEST MANUFACTURERS OF AUTOMOTIVE GOVERNORS

Maintenance Manuals

Continued from Page 299

system. Fully illustrated to aid in assembly and trouble shooting. Free—Automotive Division, Warner Electric Brake and Clutch Co., Beloit, Wis.

Clutches and Transmissions

The Clutch, How to Service It—50 pages—Manual on clutch maintenance,

including clutch operation, construction, how to do a clutch job, pedal adjustment, how to locate and correct clutch troubles. Each 50¢—Sales Service Dept., Accurate Parts Mfg. Co., 1600 South Ashland Ave., Chicago 8, Ill., or local jobber.

Service Manuals—Manual on servicing DP, ML, TC clutches. Specify model number when ordering. Free—Advertising Dept., Lipe-Rollway Corp., 806 Emerson Ave., Syracuse 1, N. Y.

Clutch Troubles and Their Cures—11 pages—Trouble-shooting guide for

correction of clutch troubles. Includes assembly and inspection tips. Free—Russell Mfg. Co., East Main St., Middletown, Conn.

Service Manuals, Fuller Transmissions—Available for Model Nos. 5A33, 5A330, R35, R46, R96, R960 and R1150. Specify model number when ordering. Free—Service Sales, Fuller Mfg. Co., Transmission Division, Kalamazoo, Mich.

Preventive Maintenance Wall Chart for Conventional 5-Speed Transmissions—Developed especially for truck operators, wall chart covers all checks on Fuller's 5-speed unit. Free—address as above.

Automatic Transmissions, Vol. III, Thompson Repair and Tune-Up Manuals—Full description of operation, service and maintenance of automatic transmissions. Each \$1.50—Service Division, Thompson Products, Inc., 2209 Ashland Rd., Cleveland 3, Ohio.

On-the-car Adjustments for Automatic Transmissions—A picture-story manual for adjusting, servicing and trouble-shooting all makes of Automatic Transmissions. \$10.00—Paul-Marsh Co., 520 W. Fort St., Detroit 26, Mich.

Hydra-Matic Transmission Service Manual—256 pages—Complete step-by-step presentation with over 600 illustrations covering Hydra-Matic transmission service. Each \$4.50—The Paul-Marsh Co., 520 West Fort St., Detroit 26, Mich.

AFBDA Bearing Maintenance Reports—Folders covering various aspects of ball and roller bearing maintenance. When requesting, specify information desired. Free—The Anti-Friction Bearing Distributors Assn., 1900 Euclid Ave., Cleveland 15, Ohio.

Bearing Maintenance Handbook—Describes proper care and maintenance of bearings. Free—Advertising Dept., Hyatt Bearings Division, General Motors Corp., Harrison, N. J.

How to Service Ball Bearings in Automotive Equipment—Covers service procedure for ball bearings. Free—Advertising Dept., M-R-C Bearings Service Co., Jamestown, N. Y.

Service Procedure for Ball Bearings, No. ND-A57—12 pages—Fully illustrated procedures on servicing and (TURN TO PAGE 302, PLEASE)

Let us demonstrate this machine IN YOUR SHOP

We can show you how it can save MANY shop hours every month



Kwik-Way Super-Matic Valve Facing Machine

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Y4091	4	91	36.0 @ 3400 RPM
F4124	4	124	47.0 @ 3200 RPM
F4140	4	140	52.0 @ 3200 RPM
F4162	4	162	58.0 @ 3200 RPM
F6186	6	186	77.0 @ 3500 RPM
F6209	6	209	90.0 @ 3500 RPM
F6226	6	226	98.8 @ 3500 RPM
F6244	6	244	103.3 @ 3500 RPM
M6271	6	271	96.5 @ 3000 RPM
M6290	6	290	108.0 @ 3000 RPM
M6330	6	330	125.0 @ 3000 RPM
M6363	6	363	146.0 @ 3000 RPM
B6371	6	371	123.5 @ 3000 RPM
B6427	6	427	142.0 @ 3000 RPM
F06226	6	226	126.2 @ 3400 RPM
K6271	6	271	114.5 @ 3200 RPM
K6290	6	290	123.0 @ 3200 RPM

Model	Cyl.	Displ.	Bare Engine H.P.
K6330	6	330	147.0 @ 3200 RPM
K6363	6	363	162.0 @ 3200 RPM
T6371	6	371	143.8 @ 3000 RPM
T6427	6	427	170.0 @ 3000 RPM
U6501	6	501	186.0 @ 2600 RPM
R6513	6	513	192.2 @ 2800 RPM
R6572	6	572	220.0 @ 2800 RPM
R6602	6	602	232.0 @ 2800 RPM
S6749	6	749	250.0 @ 2800 RPM
S6820	6	820	300.0 @ 2800 RPM
V8603	8	603	260.0 @ 3200 RPM

CUSHIONED POWER DIESEL

Model	Cyl.	Displ.	Bare Engine H.P.
TD6427	6	427	146.5 @ 2600 RPM
RD6572	6	572	172.0 @ 2400 RPM
VD8603	8	603	200.0 @ 2800 RPM
SD6802	6	802	225.0 @ 2200 RPM

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Maintenance Manuals

Continued from Page 300

care of ball bearings. Free—New Departure Division, General Motors Corp., Bristol, Conn.

Bearing Failures and Their Causes—16 pages—Fully illustrated troubleshooting guide for correction of ball and roller bearing troubles. Free—SKF Industries, Inc., Front St. and Erie Ave., P. O. Box No. 6731, Philadelphia 32, Pa.

How to Install and Care for Bearings, Form No. 308-75S—Wall chart illustrating basic steps in proper handling of ball and roller bearings. Free—address as above.

Timken Tapered Roller Bearings, Fleet Owner Service Manual—Procedures for care and maintenance of Timken tapered roller bearings. Free Service-Sales Div., The Timken Roller Bearing Co., Canton 6, Ohio.

Anti-Friction Bearings—Manual on care and maintenance of various anti-friction bearings. Free—address as above.

Cooling Systems

Give the Cooling System a Chance, Service Bulletin No. 19—12 pages—Data on need for cooling system maintenance and troubles to look for. Emphasizing diesel engines, the bulletin is also valuable for other type engines. Free—Cummins Engine Co., 5th and Wilson Sts., Columbus, Ohio.

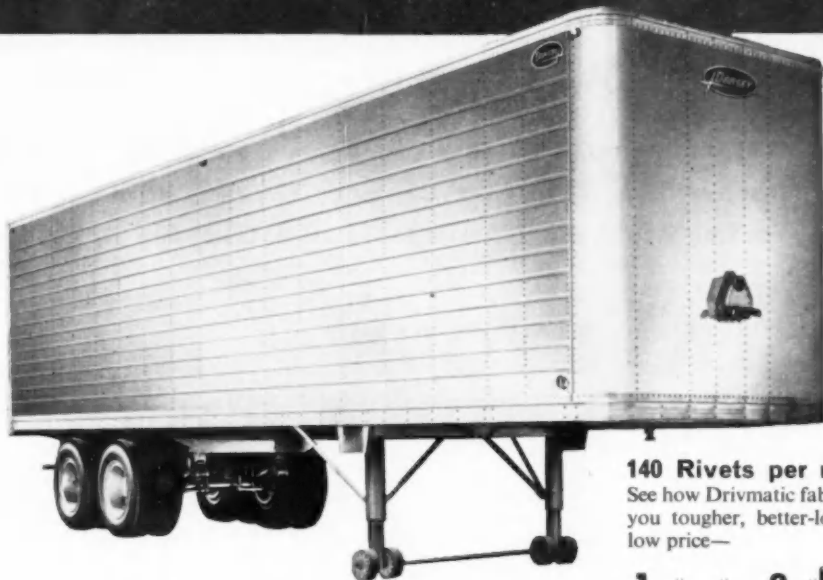
Cooling System Manual—Explains pressurized cooling systems and radiator pressure caps. Maintenance and service suggestions are included. Free—Stant Mfg. Co., Connerville, Ind., or local Stant jobbers.

Serviceman's Manual on the Automotive Cooling System—41 pages—Covers cooling system operation, selection of coolant, chemical and mechanical cleaning of the cooling system, preparation for summer or winter driving, and a large troubleshooting guide. Each \$2.00—Advertising Dept., E. I. du Pont de Nemours & Co., Inc., 2494 Nemours Bldg., Wilmington 98, Del.

Radiator Water Flow Charts—Radiator water flow charts in gallons (TURN TO PAGE 306, PLEASE)

Important News for buyers of Trailers and Bodies!

Drivmatic Aircraft-type Riveting **GIVES DORSEYS** **STRENGTH NEVER BEFORE POSSIBLE** without weight penalty



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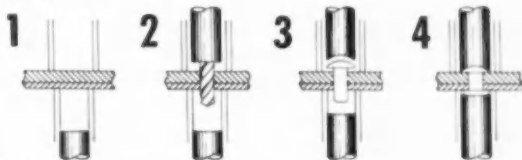
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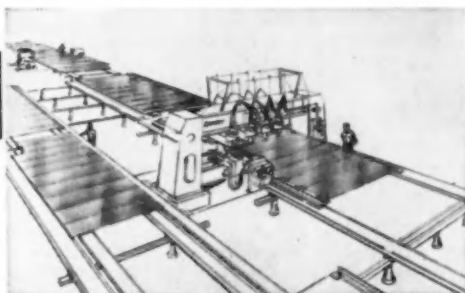


1 Side sheet and stiffener post are securely clamped together at riveting point.

2 Hole is drilled eliminating stress and distortion that can result from punching.

3 Bucking anvil ascends as rivet is inserted in hole.

4 Hydraulically-powered ram squeezes head rivet (instead of pounding). Pressure tightens rivet in hole.



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Maintenance Manuals

Continued from Page 302

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necessary maintenance, gives trouble-shooting tips—44 pages. Free—National Carbon Co., Div. of Union Carbide Corp., 30 E. 42nd St., New York 17, N. Y.

Maintenance of Automotive Cooling Systems—Textbook on construction, function and operation of automotive vehicle cooling systems. Maintenance instructions and trouble shooting tips for mechanics. \$1.50 to members, \$3.00 to non-members—Society of Automotive Engineers, 485 Lexington Ave., New York 17, N. Y.

Electrical and Ignition Systems

AEA Electrical Specifications Handbook—1958 edition—Gives necessary adjustment and test specifications for starters, generators, distributors and regulators on cars, trucks, tractors and construction equipment. \$1.25 each—Automotive Electric Assn., 16223 Meyers Rd., Detroit 35, Mich.

Delco-Remy Operation and Maintenance Handbook, No. DR-324—Over 200 pages—Covers operation and maintenance of Delco-Remy electrical and ignition system. Each \$1.50—Technical Literature Section, Delco-Remy Division, General Motors Corp., Anderson, Ind., or, United Motors System, 3044 West Grand Blvd., Detroit 2, Mich.

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Spark Plug Service Manual—Gives complete data on plug service, heat ranges, and trouble-shooting, \$1.00—Available through Auto-Lite distributors or The Electric Auto-Lite Co., Toledo 1, Ohio.

Servicing Auto-Lite Generator Regulators, No. SD-123—62 pages—Describes and illustrates service, operation and maintenance of Auto-Lite generator regulators. Each 25¢—address as above.

Auto-Lite Education Papers—Training manuals on electrical and ignition (TURN TO PAGE 309, PLEASE)

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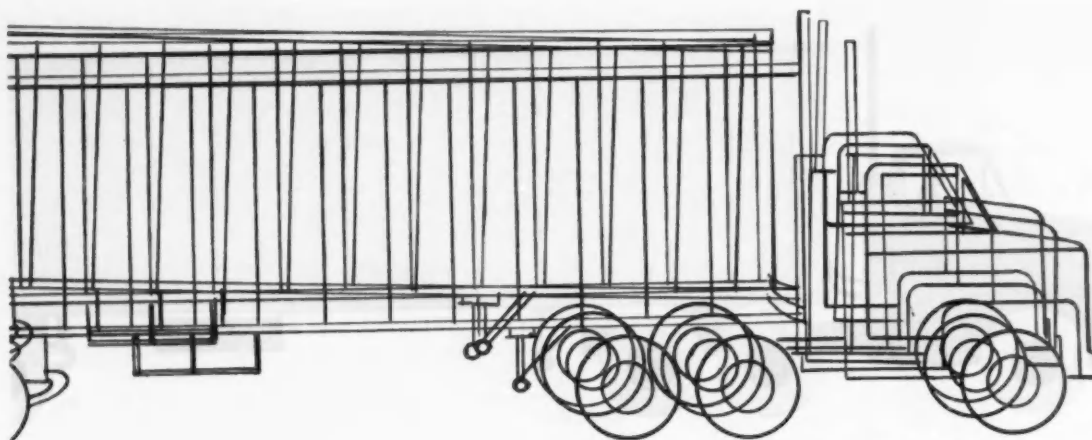


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Maintenance Manuals

Continued from Page 306

system as follows: Fundamentals of Electricity, No. T-1, each 55¢; Magnetism, No. T-2, each 55¢; Lead Acid Storage Batteries, No. T-5, each 45¢; Ignition, No. T-7, each 95¢; Spark Plugs, No. T-8, each 70¢—Education Department, Electric Auto-Lite Co., Toledo 1, Ohio.

Alternator System Operation and Test Procedures, Training Manual No. 6—13 pages—Covers operation and testing of Leece-Neve alternator systems. Free—Technical Service Dept., Leece-Neve Co., 1374 East 51st St., Cleveland 3, Ohio.

Simplified Step-by-Step Maintenance and Repair of the Leece-Neve Standard Alternator, Form No. TS-100. Free—address as above.

Six and 12 Volt Alternator Trouble Shooting Wall Chart, Form No. TS-101. Each \$1.00—address as above.

Blue Streak Voltage Regulator Manual—8 pages—Interesting presentation covering what to watch for to avoid trouble when installing a voltage regulator. Each 25¢—Standard Motor Products, Inc., 3718 Northern Blvd., Long Island City 1, N. Y.

Blue Streak Ignition Tune-Up Specification Chart—Wall chart gives compression, spark plug gap, distributor data, carburetor data, fuel pump, valve clearance and generator settings for Chevrolet, Dodge, Ford, GMC, International and Willys trucks. Free—address as above.

Storage Battery Technical Service Manual—44 pages—Covers construction operation, installations, service and maintenance of storage batteries. How to make certain battery repairs is included as well as a section on generating systems. Each 30¢—Assn. of American Battery Manufacturers, 19 North Harrison St., East Orange, N. J.

How to Increase Battery Life in Commercial Service, No. BD-669—Tips on battery care and operation. Free—Auto-Lite Battery Division, Electric Auto-Lite Co., Toledo 1, Ohio.

Delco Batteries, Bulletin No. 7D-100—12 pages—Construction, opera-
(TURN TO NEXT PAGE, PLEASE)

Maintenance Manuals

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tion, care and maintenance of Delco batteries. Free—Technical Literature Section, Delco-Remy Division, General Motors Corp., Anderson, Ind.

Delco Dry Charged Batteries, Bulletin No. 7D-100B—12 pages—Battery tips, especially on dry charge Delco batteries. Free—address as above.

Facts about Storage Batteries, No. AF1888—31 pages—Handy manual covering basic battery operation and care. Well illustrated. Each 10¢—Exide Automotive Division, P. O. Box 8109, Philadelphia 1, Pa.

Battery Service Manual—Covers maintenance, operation and care of Prest-O-Lite batteries. Free—Sales Dept., Prest-O-Lite Battery Division, Electric Auto-Lite Co., Toledo 1, Ohio.

Battery Service Manual, No. 402-1688—40 pages—Manual on battery

care, how to prevent battery failure, how to avoid battery failure. Free—Willard Storage Battery Division, 246-286 East 131st St., Cleveland 1, Ohio.

Battery Training Manual—Gives the whole story needed to train men on battery care and maintenance. Nominal charge per copy—Delco-Remy Division, GM Corp., Anderson, Ind.

Spark Plug Shop Manual, No. A-1920—Describes care and maintenance of spark plugs. Free—Merchandising Dept., AC Spark Plug Division, General Motors Corp., 1300 North Dort Highway, Flint 2, Mich.

Service Manual, Champion Spark Plugs, No. 7K—17 pages—Describes Champion spark plug types, construction and sizes. Includes maintenance, trouble-shooting and heat range data. Free—Advertising Dept., Champion Spark Plug Co., Toledo 1, Ohio.

Spark Plug Checking and Cleaning Procedure—Manual containing interesting tips on checking spark plug condition. Free—address as above.

Packard Cable Fleet Wiring Manual, No. A1610—22 pages—Complete review of automotive wiring with emphasis on what to look for in checking wiring. Tells how to determine correct wire size for a particular job. Free—United Motors Service Division, General Motors Corp., General Motors Bldg., Detroit 2, Mich.

Engines

AEA Tune-Up Manual—Illustrated manual discusses how to tune-up an engine as well as the reason for the operations. Each \$1.00—Automotive Electric Assn., 16223 Meyers, Detroit 35, Mich.

AEA Technical Training Manual, Vol. 2—Automotive Fuel Systems—With emphasis on carburetion, this manual covers service on fuel pumps, carburetors, air cleaners and governors. Each \$1.00—address as above.

Modern Preventive Maintenance for Gasoline and Diesel Trucks—32 pages—Complete outline of preventive maintenance program for truck engine, transmission, brakes and wheels. Can be adapted for most operations. Free—GMC Truck and Coach Division, General Motors Corp., Pontiac, Mich.

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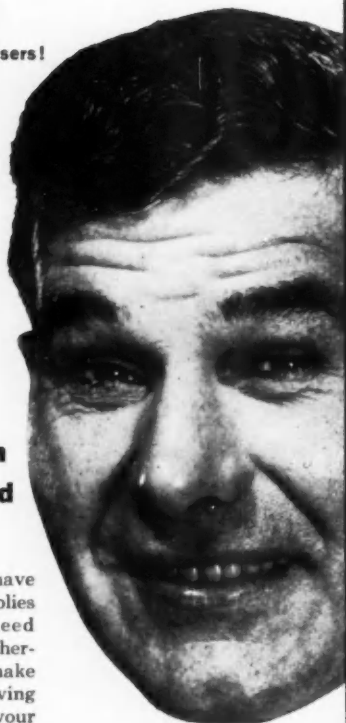
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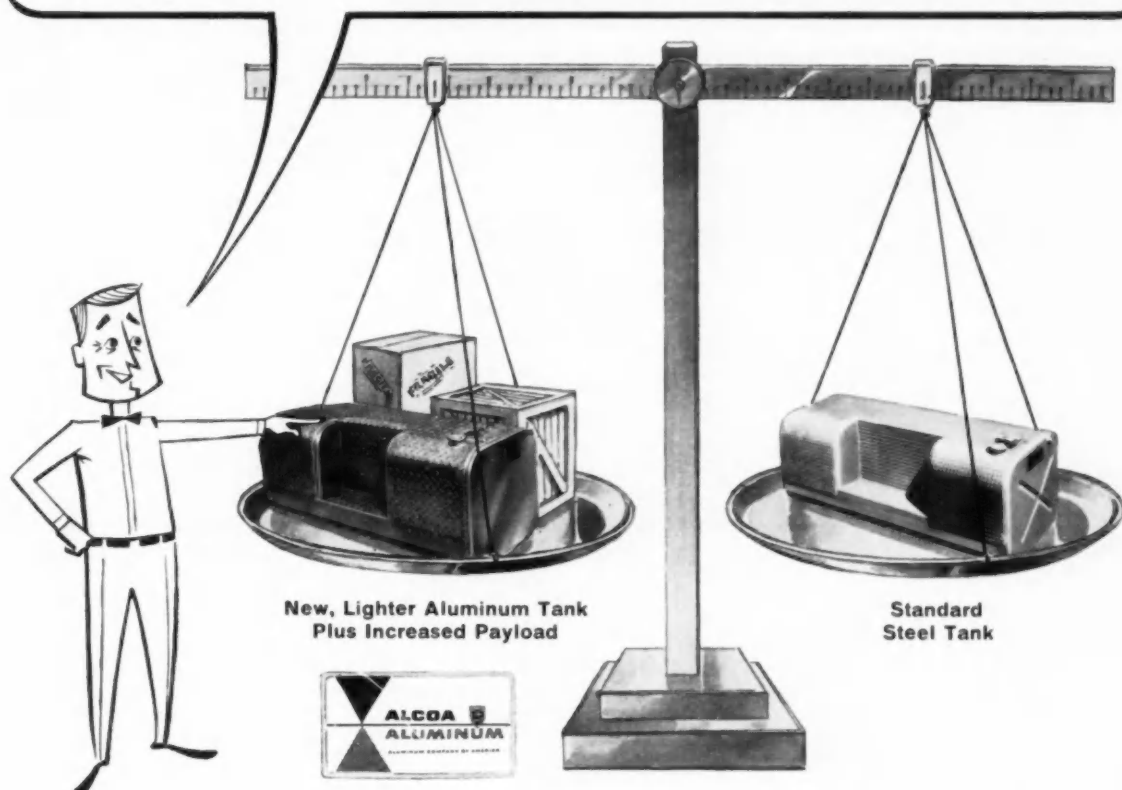
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Engine Principles and Automotive Tune-Up Fundamentals—Complete textbook covering internal combustion engine ignition, compressing, timing and carburetion. Includes maintenance, service, adjustment and operation data. Each \$2.00—Education Dept., Holley Carburetor Co., 11955 East 9 Mile Rd., Van Dyke, Mich.

Service Manual for the Doctor of Motors—90 pages—Complete book on piston ring service and maintenance. Includes data on cylinder, carburetor and other engine troubles affecting

piston rings. Free—Advertising Services Dept., Perfect Circle Corp., Hagerstown, Ind.

Thompson Repair and Tune-Up Manual, Vol. 2, Trucks, Buses, Tractors, Diesel Engines, Etc.—514 pages—A how-to-do-it manual covering operations necessary in engine repair and tune-up. Each \$1.50—Service Division, Thompson Products, Inc., 2209 Ashland Rd., Cleveland 3, Ohio.

Diesel Engineering Handbook—835 pages—Complete textbook on diesel engine operation and service. Several chapters specifically cover both on and off-highway automotive diesel engines. Each \$8.50—Diesel Publications, Book Division, 80 Lincoln Ave., Stamford, Conn.

Diesel Troubleshooting Chart—A quick reference chart listing 26 common complaints and causes. A handy guide for diesel mechanics. Free—Cummins Engine Co., 5th and Union Sts., Columbus, Ind.

Pedrick Engine Repair Manual—Section I, General Data, 44 pages—Section II, Passenger Car Engines, 44 pages—Section III, Truck and Bus Engines, 88 pages—Covers piston ring replacement procedures and other engine reconditioning work. Free to signers of a Pedrick Fleet Agreement—Advertising and Sales Promotion Dept., Wilkening Mfg. Co., 2000 South 71st St., Philadelphia 42, Pa.

Dynamometer Diagnosis and Adjustment Procedure for Cummins Diesel-Powered Trucks, No. C-566—Complete dynamometer diagnosis and adjustment procedure including checks for road horsepower, performance complaints and routine inspection. Free—Clayton Mfg. Co., Advertising Dept., Box 550, El Monte, Cal.

Air for Your Engine, Service Bulletin No. 16—Explains why air is important to efficient engine operation. Primarily for diesel engines, the information applies to other types of engines. Free—Cummins Engine Co., Service Publications Dept., 5th and Wilson Sts., Columbus, Ind.

Recommended Practices for Care and Handling of Bearings—A series of booklets covering ball, roller and engine bearings and their oil seals. 35-mm slide-films are available for use with the booklets. See your local Federal-Mogul branch or District office.

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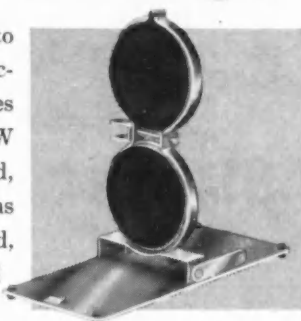
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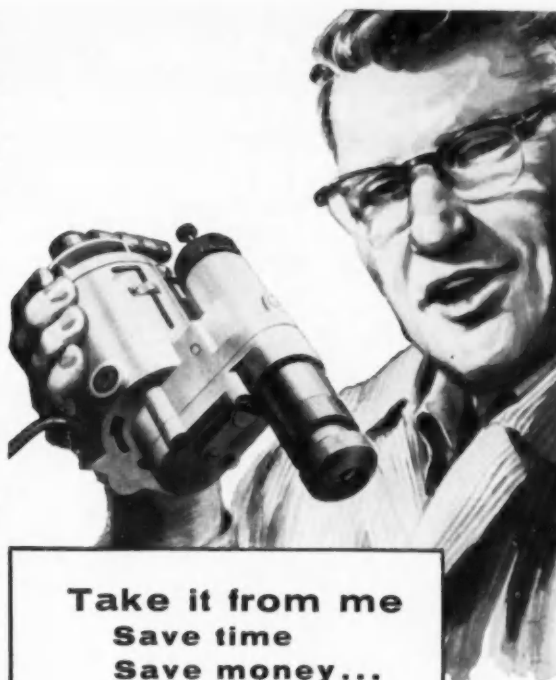
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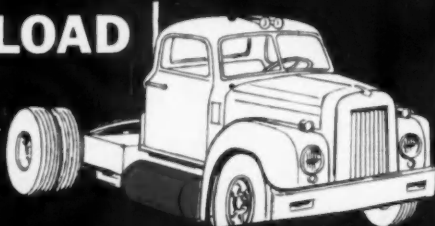
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Continued from Page 312

Mechanics Engine Bearing Reference Manual—100 pages—Manual on engine bearings covering bearing fundamentals, lubrication, failure, replacement, selection, installation, construction, performance. Free—Clevite Service, The Cleveland Graphite Bronze Co., 6545 Carnegie Ave., Cleveland 3, Ohio.

Engine Bearing Service Manual—109 pages—Complete review of engine bearing operation, types, design characteristics, tools used in installation, procedure in replacing, and trouble-shooting. Each \$1.00—Advertising and Sales Promotion Dept., Federal-Mogul Service, 11031 Shoemaker, Detroit 13, Mich.

Johnson Automotive Bearing Manual—97 pages—Complete review of removal, installation and maintenance of engine bearings. Fully illustrated to provide information on trouble-shooting, lubrication, and different types of bearings. Each \$1.00—Johnson Bronze Co., New Castle, Pa.

Toledo Engine Bearing Manual—100 pages—Comprehensive manual on engine bearing purpose, construction, selection, installation and performance. Each \$1.25—The Toledo Steel Products Co., Toledo 11, Ohio.

Fleet Owner Data Book—Maintenance and operation of various models of Holley carburetors. When requesting, specify make and model of vehicle and carburetor. Each \$1.00—Education Dept., Holley Carburetor Co., 11955 East 9 Mile Rd., Van Dyke, Mich.

Know Your Carburetor, No. YC-56—46 pages—Manual on the construction, function and maintenance of carburetors. Free—Pennsylvania Refining Co., 2686 Lisbon Rd., Cleveland 4, Ohio.

Operation and Maintenance Manual, Rochester Carburetors—over 100 pages—Includes theory of carburetion, as well as operation, maintenance, service, adjustment, inspection and assembly of Rochester carburetors. Each \$1.50—United Motors System, 3044 West Grand Blvd., Detroit 2, Mich.

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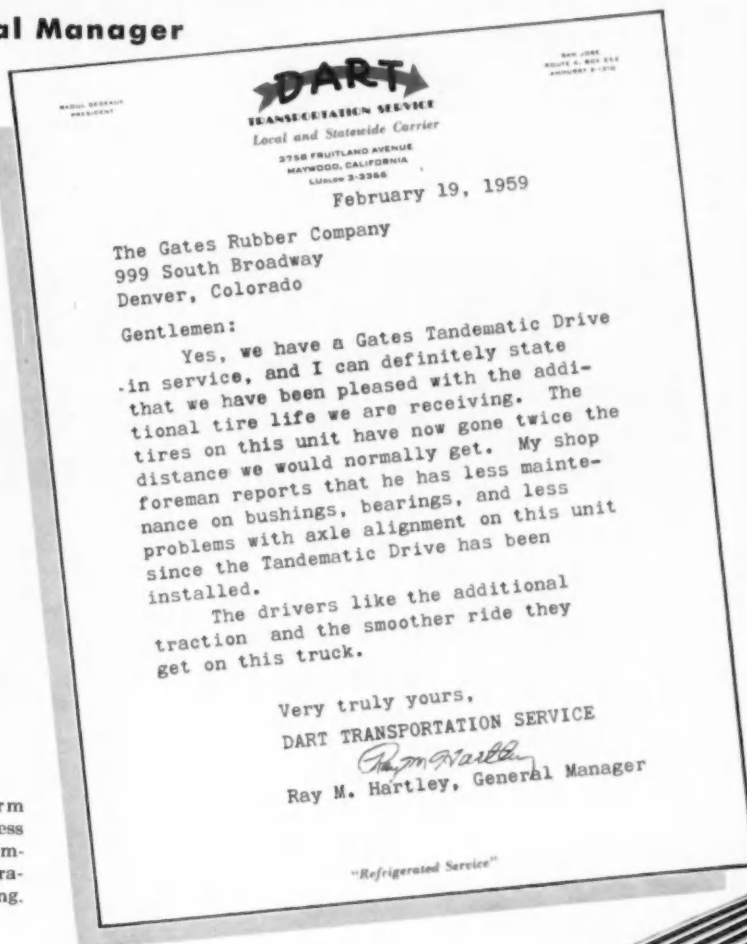
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Maintenance Manuals

Continued from Page 314

American Bosch Fuel Injection Equipment Maintenance Information, Form No. 3465—50 pages—Describes maintenance, service and operation of American Bosch fuel injection pumps, fuel supply pumps, mechanical and pneumatic governors, nozzles

and nozzle holders and fuel oil filters. Fully illustrated. Each 40¢—Advertising Dept., American Bosch Corp., Springfield 7, Mass.

How to Hone Cylinders—Instructions on cylinder honing. Free—Sales Dept., Lisle Corp., 809 East Main St.,

Dayton Fan Belt Service Manual, No. A-861—Describes service and adjustment of engine fan belts. Free—Advertising Dept., Dayton Rubber Co., 2342 West Riverview Ave., Dayton 1, Ohio.

General Operation and Service of Automotive Pulley and Belt Drives, Service Bulletin No. 1006—Data on operation and service, including trouble-shooting, on engine fan belts. Free—Technical Service Dept., Leece-Neville Co., 1374 East 51st St., Cleveland 3, Ohio.

Fuel Pump Shop Manual, No. A-1919—Information on operation and repair of the fuel pump, including combination fuel and vacuum pumps. Includes testing, trouble-shooting and overhauling. Free—Merchandising Dept., AC Spark Plug Division, General Motors Corp., 1300 North Dort Highway, Flint 2, Mich.

Hydraulic Valve Lifter Service and Installation Manual, Form No. A-2477—8 pages—Manual on hydraulic valve lifters has several excellent illustrations plus trouble-shooting tips. Free—address as above.

Fuel Pump Service Manual—16 pages—Covers service, operation, checking, maintenance and testing of Hygrade fuel pumps. Free—Advertising Dept., Hygrade Products Division, Standard Motor Products, Inc., 37-18 Northern Blvd., Long Island City 1, N. Y.

Fits and Finishes—Discussion of maintenance and operation of piston pins and cylinders. Free—Advertising Dept., Sunnen Products Co., 7910 Manchester Ave., St. Louis 17, Mo.

Just What Is a Pin Fit?—24 pages—Covers piston pin fit troubles and their cures. Tells how to check pin fits. Free—address as above.

Principles of Valve and Valve Seat Reconditioning, Form No. 40—27 pages—Manual on engine valve reconditioning. Free—Literature Dept., Black & Decker Mfg. Co., Towson 4, Md.

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Approved Lubrication, Trucks plus Axle Units and Trailers, School Bus and Motor Coach Recommendations—108 pages—Lubrication guide for trucks, buses, trailers and axle units using "follow-the-chart" diagrams. Each \$18.00—Sales Dept., The Chex-Chart Corp., 33 East Congress Parkway, Chicago 5, Ill.

Approved Lubrication, Passenger Cars, Light Trucks—160 pages—Similar to the above for use by passenger car fleets. Each \$18.00—address as above.

(TURN TO PAGE 318, PLEASE)

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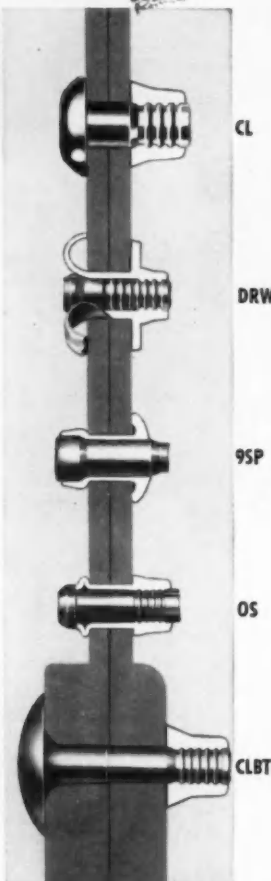
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Maintenance Manuals

Continued from Page 316

Chek-Chart Truck Preventive Lubrication Maintenance Program—Said to meet requirements of ICC Safety Regs, Part 196, it consists of maintenance folder, shop work sheet, driver's vehicle report and individual lubrication charts. Write for price information—address as above.

Lubrication Recommendations, Fuller Transmissions—Lubrication specifications for better maintenance. Free—Service Sales Dept., Transmission Division, Fuller Mfg. Co., Kalamazoo, Mich.

Panorama of Lubrication, Fundamentals of Lubrication and Friction Type Bearings. Free—Shell Oil Co., Lubricants Division, Industrial Products Dept., 50 West 50th St., New York 20, N. Y.

Sinclair Lubrication Guide Service—8 pages, 12 pages—two booklets covering lubrication maintenance for trucks and tractors. Free—Sinclair Refining Co., Technical Service Division, 600 5th Ave., New York 20, N. Y.

Lubrication of Diesel Engines. Free—Sun Oil Co., 1608 Walnut St., Philadelphia 3, Pa.

Recommended Practices for Lubricating Automotive Front Wheel Bearings—15 pages—Covers in 42 points the servicing of front wheel bearings. Each 15¢—National Lubricating Grease Institute, 4638 J. C. Nichols Parkway, Kansas City 12, Mo.

Tires

Firestone Data Book for Trucks, Trailers, Passenger Cars and Industrial Vehicles, No. 2-C-817—Includes tire care, maintenance and service data, such as a special trouble-shooting section, instruction for determining tire loads, how-to-figure tire cost per mile, and determining dual wheel spacing and clearance. Free—Advertising Dept., Firestone Tire and Rubber Co., Akron 17, Ohio.

How to Get the Most Service from Off-the-Highway Tires—40 pages—Complete discussion of care, service, maintenance and operation of off-highway tires for longer life. Free—address as above.

(TURN TO PAGE 320, PLEASE)



24 models—5,000 to 19,000 lbs. GVW, including special heavy-duty vehicles and 4 x 4's.

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provide highly efficient performance, longer life and highest economy. All models come with standard pickup, stake or flatbed bodies or chassis/cab, chassis/cowl versions for special purpose bodies.

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STUDEBAKER-PACKARD CORPORATION
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MOVE MORE...MAKE MORE with STUDEBAKER "HAUL of FAME" TRUCKS

Maintenance Manuals

Continued from Page 318

B. F. Goodrich Truck Operators Handbook—Review of tire selection, tube care, dual matching and spacing, alignment, rotation, inflation, load distribution, recapping and repair, and driving habits. Free—Sales Dept., B. F. Goodrich Tire Co., Dept. 0645, 500 South Main St., Akron, Ohio.

Off-The-Road Tires—A 52-page illustrated handbook showing how to get maximum service out of off-highway tires. Load and inflation tables are included. Free—Public Relations Dept., B. F. Goodrich Co., 500 S. Main St., Akron, Ohio.

How to Get More Recaps Out of Your Truck Tires—8 pages—Describes cost savings, recapping processes, rotation, tire care, and suggestions on when to recap. Free—address as above.

How to Get Extra Service Out of Truck Tires—24 pages—Covers overload troubles, over and underinflation, tread wear, heating, tubes, matching of duals, and driving for tire conservation. Fully illustrated to aid in truck tire maintenance. Free—Advertising Dept., Lee Tire and Rubber Co. of N. Y., Conshohocken, Pa.

The Truth About Tires—Explains in simple English how tires are made, gives tips on tire care and maintenance to help prolong tire life. Free—The General Tire & Rubber Co., 1708 Englewood Ave., Akron, Ohio.

Tire Maintenance Manual—Shows proper tire matching, load inflation and weight distribution practices. Wheel and rim information is included. Free—Dept. 18, Cooper Tire & Rubber Co., Findlay, Ohio.

Truck and Bus Tire Manual, Seiberling Product and Data Book—Pocket-size manual on tire, tube and rim maintenance and selection. Free—Seiberling Rubber Co., Truck Tire Sales Dept., Akron 9, Ohio.

Truck Tire Data Book—Covers all tire applications, on and off-highway. Cost-per-mile charts, rim data, load and inflation data are included. Wall chart available also. Free—U. S. Rubber Co., 1230 Ave. of the Americas, New York 20, N. Y.

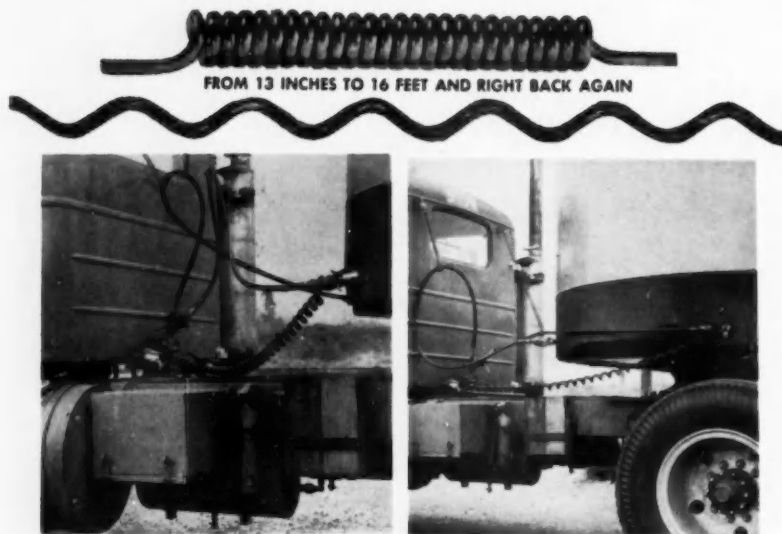
Truck Tire Load and Inflation Chart and Gasoline Mileage Indicator—Slide rule shows recommended inflation pressure for various loads for 40 different size truck tires. Other side is a handy calculator for quickly figuring miles per gallon. Free—Advertising Dept., The Tire Mart, Inc., 419 4th Ave., New York 16, N. Y.

Tubeless Tires

Tubeless Tire Instruction Booklet—Guide to servicing and trouble shooting on tubeless tires. Free—Armstrong Rubber Co., Advertising Dept., West Haven, Conn.

Tubeless Tire Servicing Chart—Illustrated wall chart on tubeless tire servicing and repair. Free—Dayton Rubber Co., 2342 Riverview Ave., Dayton 1, Ohio.

Mounting Firestone Tubeless Tires, Form No. O-B-409—Wall chart giving step-by-step instructions for mounting and demounting tubeless tires. Free—Firestone Tire & Rubber Co., 1200 Firestone Parkway, Akron, Ohio.
(TURN TO PAGE 324, PLEASE)



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VANS**



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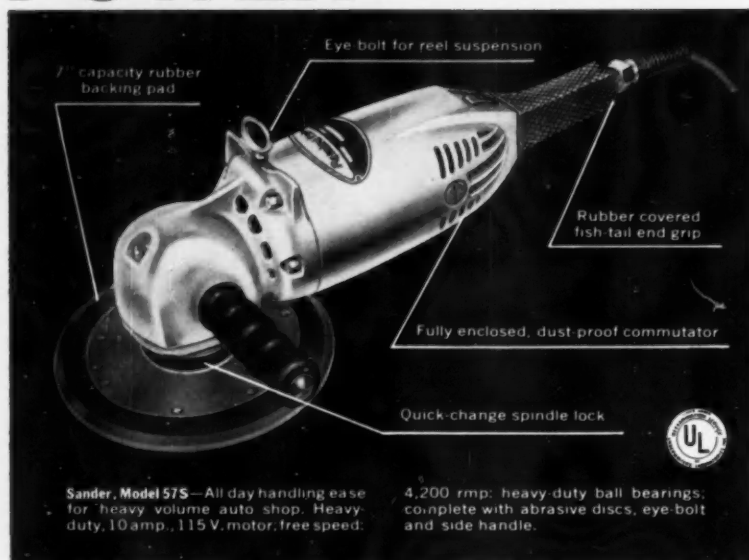
Use conventional models? Dodge medium- and high-tonnage conventional models are "Job-Rated" to your needs, matched to your job both in G.V.W. and equipment. Traditionally dependable, exceptionally economical.



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Pedestal Grinder, Model 1EGP—110 or 220-v., 1/2-hp. constant-speed motor. Wide range of spindles and gearing. Big tool tray.

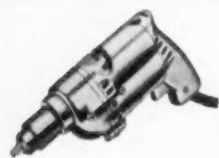


Screwdriver, Model 143SR—Toggle switch reverses rotation; adjustable clutch for pre-set tension; capacity: 1/4" Hex drive bits.



Impact Wrench, Model W-120—Heavy-duty, 4-amp. reversible motor drives wide selection of sockets and attachments.

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Company _____

Address _____

City _____ Zone _____ State _____

Specifications subject to change without notice.

Maintenance Manuals

Continued from Page 320

How to Repair Tubeless Tires, Form No. O-B-408—Wall chart giving four illustrated, step-by-step methods for repairing tubeless tires. Free—address as above.

How to Repair Tubeless Tires—4 pages, illustrated—Gives basic steps for proper repair. Points out differences from tube-type tire repair. Free—Dill Mfg. Co., 700 East 82nd St., Cleveland 3, Ohio.

All You Need to Know About Tubeless Tires for Trucks—12 pages—Brief but compact review on servicing, repair and advantages of tubeless truck tires and rims. Free—The B. F. Goodrich Tire and Equipment Co., 500 South Main St., Akron, Ohio.

Tubeless Off-the-Road Tires and Rims, Form No. S-1187—Seven pages of illustrated servicing methods for handling tubeless tires for off-highway equipment. Free—Advertising Dept., Goodyear Tire & Rubber Co., Akron 16, Ohio.

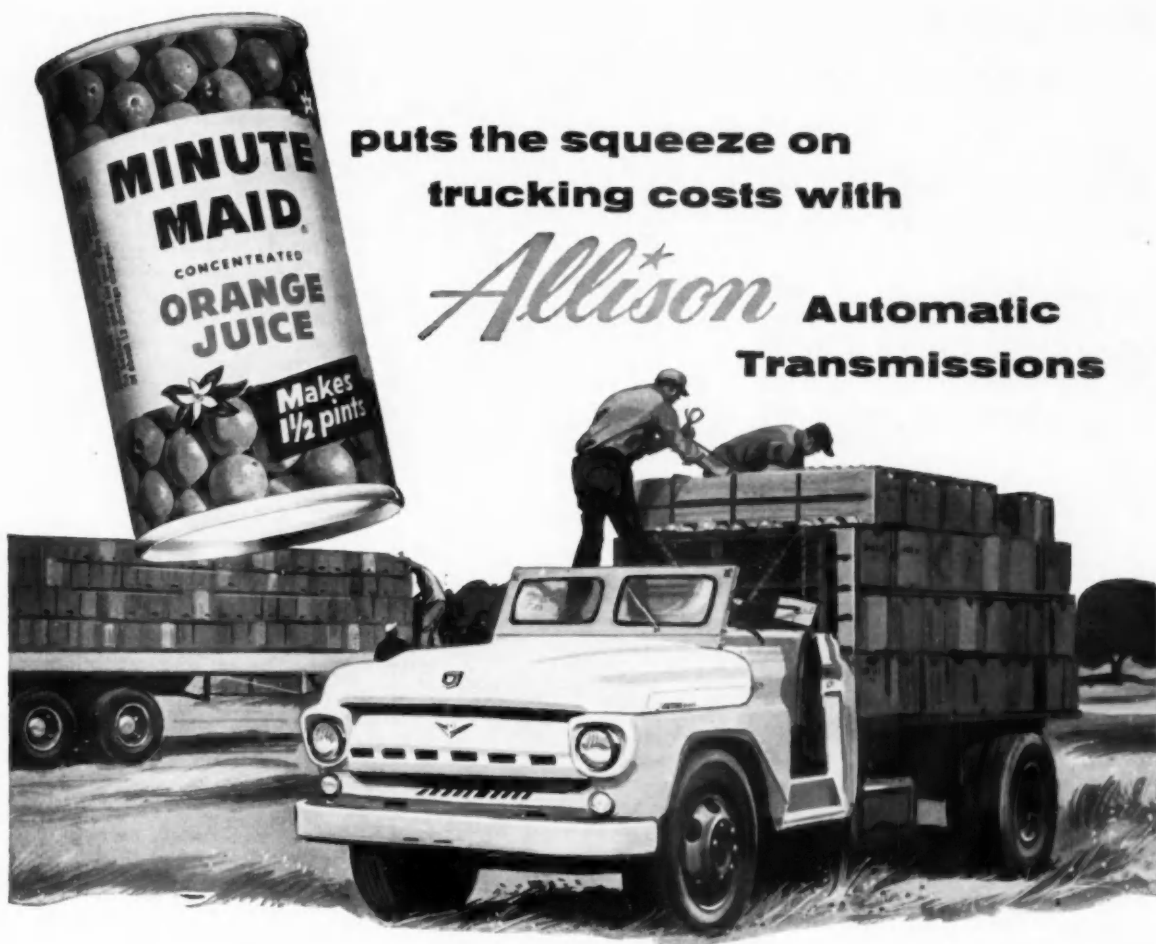
Complete Guide to Proper Service and Repair of Tubeless Tires—12 pages—Illustrated manual on tubeless tire servicing. Includes a 22 point "Do" and "Don't" list and a review of six ways to repair a tubeless tire. Free—Jack P. Hennessy Co., 12 Depot Square, Englewood, N. J.

Tubeless Truck Tire Service Manual, Form No. C-384—4 pages—Compact service data plus recommended rim and valve sizes for tubeless tires. Free—Advertising Dept., Lee Tire & Rubber Corp., Conshohocken, Pa.

Tubeless Automobile Tires, Mounting, Demounting and Repairing—8 pages—Describes tubeless tire servicing including preparation of the rim, valve installation, tire mounting, inflation, demounting and repair. Free—Rubber Manufacturers Assn., 444 Madison Ave., New York 22, N. Y.

How to Service Tubeless Truck Tires—12 pages—Basic and complete guide to servicing tubeless truck tires. Free—address as above.

Passenger Car Tires—Care and Service—24 pages—Shows what can (TURN TO PAGE 326, PLEASE)



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Rutted, loose-sand roads. Stop and crawl service. Frequent rocking out of bog-downs. Hauling 3½-4½ ton payloads through these grueling conditions. That's what trucks have to take in an orange grove.

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built Ford Transmatic transmissions. He's had the Transmatics for up to a year and is planning on replacing *all* his stick-shift trucks with Transmatics.

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Maintenance Manuals

Continued from Page 324

happen to tires from abuse and misuse. Tire pressure recommendations for all passenger car tires are given. Single copies free—address as above.

Tools and Procedures

How to Run a Lathe—128 pages—Training manual on care and opera-

tion of a metal working lathe. Each 50¢—Sales Dept., South Bend Lathe Works, South Bend 22, Ind.

How to Run a Drill Press—31 pages—Information on various drilling methods. Each 25¢—address as above.

Torque Manual, 2nd Edition—28 pages—Covers the application, principles and special adapters for torque wrenches. Free—Sales Dept., P. A. Sturtevant Co., Addison, Ill.

Trailer PM Practices—Compiled by the Truck-Trailer Manufacturers

Assn. Covers routine trailer PM and ICC inspection and maintenance requirements. It's offered free from Berg Mfg. and Sales Co., 1712 S. Michigan Blvd., Chicago 16, Ill. or 50¢ each from TTMA, 710 Albee Bldg., Washington 5, D. C.

Fruehauf Tank Trailer Repair Manual—31 pages—Comprehensive manual on repair of tank trailers. Includes procedure for explosive testing, ICC regulations on tank trailer transport as well. Free—Fruehauf Trailer Co., 10940 East Harper Ave., Detroit 32, Mich.

Spray Painting Hints—Brief folder listing possible spray painting troubles and suggestions for correcting them. Binks Mfg. Co., 3114 West Carroll Ave., Chicago 12, Ill.

Making the Most of the Spray Painting Method—32 pages—Illustrated information on how-to-do spray painting together with instructions on proper care of equipment. Free—Sales Dept., DeVilbiss Co., Toledo 1, Ohio.

Hot Spray Application of Automotive Finishes—Summary of information on hot spray painting. Free—Automotive Division, Sherwin-Williams Co., 101 Prospect Ave., N. W., Cleveland, Ohio.

Metal Preparation, Bulletin No. 4, Form No. O-274—6 pages—Well presented summary on preparation of metal surfaces for painting. Free—address as above.

Modern Baking, Bulletin No. 3, Form No. O-262—6 pages—Up-to-date report on how to attain best results with paint baking. Free address as above.

How to Repair a Reinforced Plastic Fender—A step-by-step illustrated outline on the repair of fiber glass reinforced plastic body components. Free—Lunn Laminates Inc., Sales Dept., Huntington Station, Long Island, N. Y.

Welding Techniques

Safety in Electric and Gas Welding and Cutting Operations—Manual on safety in welding and cutting procedures. Each 50¢—American Welding Society, Inc., 33 West 39th St., New York 18, N. Y.

(TURN TO PAGE 328, PLEASE)



AMERICA'S FLEET OWNERS

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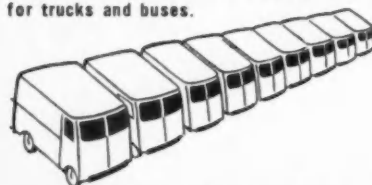
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The Curtis CV Compressor is built for fleet maintenance. Power for painting, lifts, grease-guns, impact wrenches, tire inflation! All the compressed air a shop can use all the time—The right Curtis compressor on the job assures an adequate and dependable supply of air at the proper pressure. Positive self-starting. And self-lubricating Curtis compressors (with Timken main bearings) provide trouble-free service year after year. Sizes 1/4 to 50 H.P.

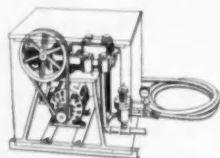
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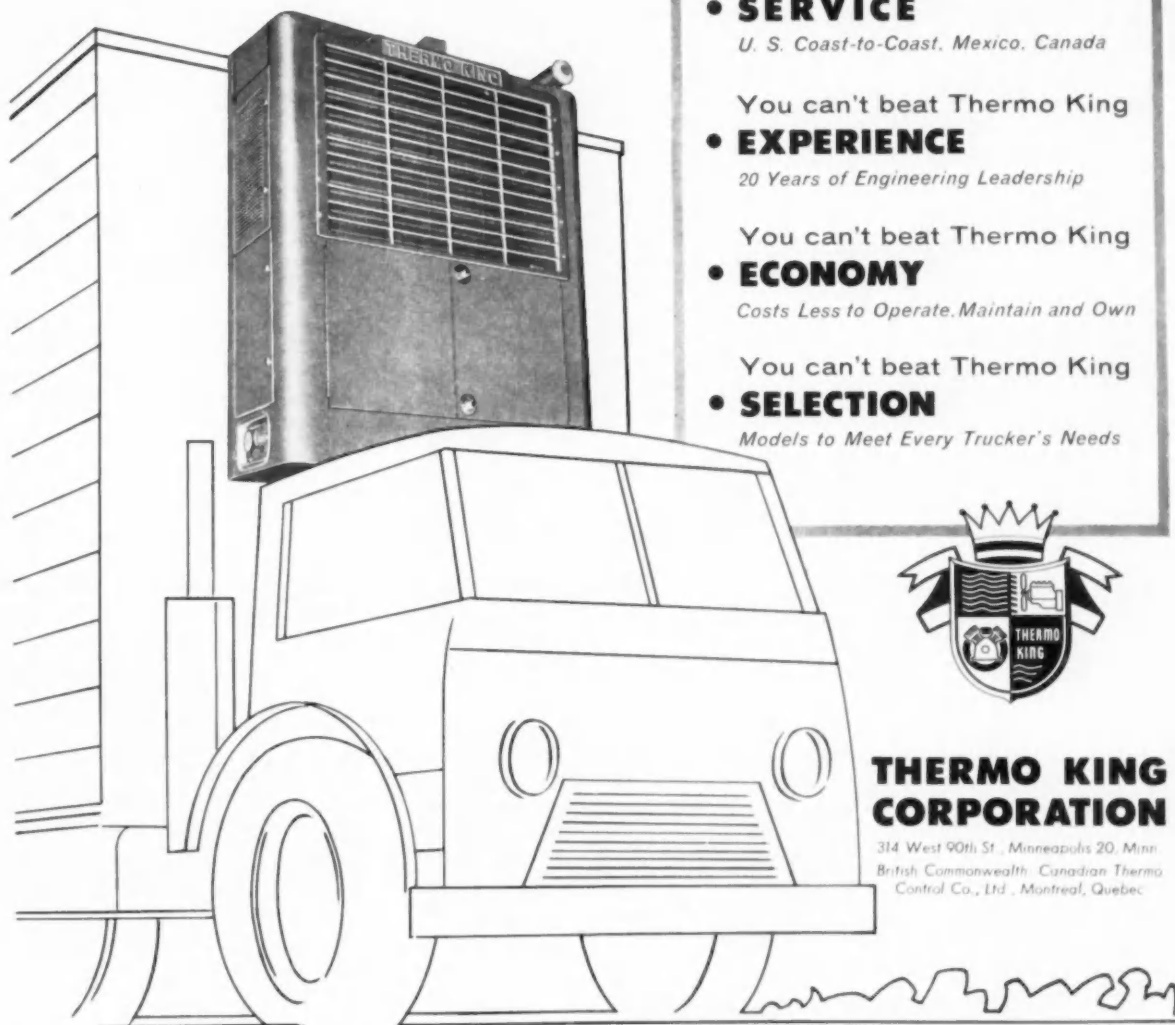


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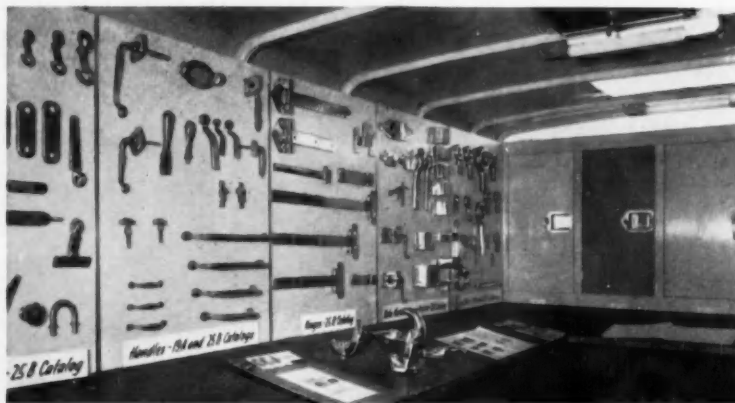
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328

Maintenance Manuals

Continued from Page 326

Fundamentals of Welding—560 pages—A revised handbook covering all basic welding problems. Comprehensive in scope. \$9.00 each—address as above.

Safe Practices for Welding and Cutting Containers That Have Held Combustibles—Manual on safety in welding gas tanks and other tanks to avoid explosions and other dangers. Each 50¢—address as above.

Truck and Car Fleet Maintenance and Repair Welding Manual, No. TIS 1010—56 pages—Covers almost all welding operations in fleet maintenance. Free—Eutectic Welding Alloys Corp., 40-40 172nd St., Flushing, N. Y.

How to Get Better Welds—60 pages—It's a revised edition of Weldor's Vest Pocket Guide and explains proper welding procedures, positions, troubles and types of joints. Free—Ask for Form No. EW-201. Hobart Brothers Co., Hobart Square, Troy, Ohio.

How to Build Your Own Arc Welder—Handy booklet illustrating many varieties of shop-assembled portable and other arc welding rigs. Free—address as above.

Metals and How to Weld Them—322 pages—Complete text book on welding, welding trouble shooting, how to weld various metals. Each \$2.00—The James F. Lincoln Arc Welding Foundation, P. O. Box 3035, Cleveland 17, Ohio.

Weldability of Metals—Data on welding of different metals. Each 50¢—Lincoln Electric Co., 22801 St. Clair Ave., Cleveland 17, Ohio.

New Lessons in Arc Welding—320 pages, illustrated—This revised book is a reference and text. Covers the whole arc welding story including equipment, procedures, tests and weld symbols. \$1.00—address as above.

Welding Precautions and Safe Practices—Information on welding technique with emphasis on safety in welding. Free—Linde Air Products Co., 30 East 42nd St., New York 17, N. Y.

COMMERCIAL CAR JOURNAL, April, 1959

10 minutes for complete pump overhaul...

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Without removing the pump from the vehicle, and without disconnecting hydraulic lines, the new Vickers "High Performance" pump can be completely overhauled by simply inserting a new pumping cartridge. The pumping cartridge contains all wearing parts in one replaceable unit and results in new pump performance. Write for Bulletin No. M5108 for performance characteristics.



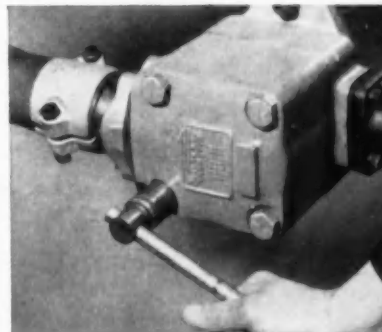
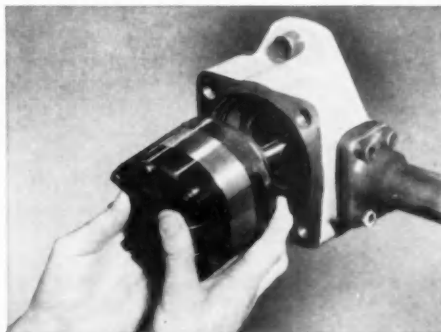
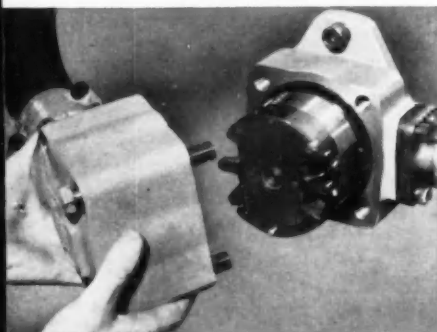
1. After safety, cleanliness and draining instructions have been followed per vehicle manufacturer's recommendations, take out four cover bolts and remove cover.



2. Take out old pump cartridge and insert new one. The cartridge includes cam ring, rotor, vanes, etc. —all parts in one assembly.



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MAINTENANCE FILMS FOR MECHANIC

THIS LIST of maintenance training films has been selected to provide effective and efficient instruction for mechanics in bus and truck fleets. The step-by-step procedures and the basic background material will ideally supplement other instruction, save you time and money in the long run.

Following the title of each film is the running time, a brief description of the film, whether free loan or rental, and a numerical reference to the source list beginning on page 340.

Most of these films are available for your use without cost—you pay only transportation and insurance. Others carry a nominal rental charge. Projectors for showing them, if not otherwise obtainable, can usually be rented in any city at low cost. Because of demand, films should be ordered as far in advance as possible.

Films in this list are 16 mm sound films unless otherwise indicated and should never be shown in silent type projector as it destroys the sound track.

For your convenience, films in this section have been divided into the following sections:

Subject	Begins on page
Brakes	330
Clutches, Transmission	330
Electrical, Ignition	330
Engines	330
Fuels, Lubricants	331
Tools & Procedures	331
Welding Techniques	338

Brakes

Air Brakes, Operation and Maintenance, Part 1—24 min—Covers truck and tractor air brakes. Free loan—4.

Air Brakes, Operation and Maintenance, Part 2—21 min—Covers trailer air brakes. Free loan—4.

Short Stops—10 min—Describes operation of automobile hydraulic brakes and how to use them effectively. Free loan—13.

Taking the Guesswork Out of Brake Work—60 min—Color film covers servicing, trouble shooting, operation and maintenance of brakes. Free loan—40.

Wagner Air Brakes—30 min—Shows operation of both straight air and air-over-hydraulic systems. Uses cutaway units, slow motion sequences to show how the air brake works. Free loan—45.

Clutches and Transmissions

Automatic Transmission—10 min—Using a passenger car, shows how automatic transmission compares with standard shift. Also shows how to drive with automatic transmission for maximum efficiency. Rent—25.

Hydraulic Controls in HydraMatic Transmission—26 min—Explains basic shifting patterns and shows how hydraulic controls are applied in each phase of up shifting and down shifting. Free loan—41.

R45 Road-ranger—20 min—In color, it covers operation and construction of the Fuller R45 "Road-ranger" transmission. Free loan—15.

Service Procedure for Ball Bearings—20 min—Instructional film showing how to remove, service and install ball bearings in vehicles. Free loan—17.

That's the Torque Converter—22 min—Detailed showing of principles of torque conversion. Free loan—2.

Electrical and Ignition Systems

Ignition Engineered—35 min—Describes function and operation of the ignition system. Free loan—10.

Ignition and Spark Plugs—19 min—Illustrates cleaning and testing of spark plugs. Shows relationship of spark plug to ignition system. Free loan—5.

Johnnie Plug Check—30 min—Color film on procedure for checking spark plugs. Free loan—10.

Story of a Spark Plug—33 min—shows how to install spark plugs and describes causes of faulty performance. Also includes spark plug manufacture. Free loan—5, 42.

Story of the Storage Battery—32 min—Describes principle, operation and use of the storage battery. Also covers battery manufacture. Free loan—42.

Engines

The ABC of Internal Combustion—13 min—Animated, color film explaining basic principles of internal combustion engines. Free loan—17. Rent—25.

The ABC of the Automobile Engine—18 min—Animated, color film describing in detail parts and workings of internal combustion engines. Follow-up film to "The ABC of Internal Combustion." Free loan—17. Rent—25.

The ABC of the Diesel Engine—20 min—Animated, color film on diesel engine fundamentals. Follow-up film to "The ABC of Internal Combustion." Free loan—17. Rent—25.

Automotive Trouble Shooting. Part 2: Engine Tune-Up—33 min—Includes manifold vacuum and compression checks, battery and ignition cable checks, spark plug checks, distributor and ignition timing check, fuel system check, carburetor tests. Free loan—41.

Carburetor, Principles of Operation—25 min—Shows components, how carburetors operate—venturi principle, metering, vaporization, carburetor circuits. Free loan—41.

Cylinder Block Overhaul—30 min—Covers engine overhaul on a Continental R600 engine. Free loan—7.

TRAINING

Cylinder Head Overhaul—30 min—Describes procedure for cylinder head overhaul on a continental overhead valve engine. Free loan—7.

An Ounce of Prevention—20 min—Color film describing proper engine installation, torquing cylinder heads, preventing trouble by doing job right the first time. Free loan—50.

Diesel Story—20 min—Thorough explanation of the principle of the four-stroke diesel engine. Free loan—35.

Diesel . . . The Modern Power—21 min—Both 4 and 2-cycle engines are discussed. Engine is assembled and function of each part explained. Free loan—17, 42.

Engine Tune-Up—30 min—Tune-up and preventive maintenance with Continental engines and Diamond T trucks is described in this film. Free loan—7.

International Diesel Power—20 min—Explains features and shows operation of the International diesel engine. Free loan—20.

The Power Within—20 min—Describes the creation of power in the automobile internal combustion engine, illustrating the operation of each part, and explains how power is transmitted to the rear wheels. Free loan—42.

Operation Hourglass—17 min—Color film showing effect of dirt and dust on diesel engine life, and how to keep dirt out. Free loan—49.

Professor Otto Trouble—16 min—Animated film on automobile cooling system troubles and proper maintenance practices. Free loan—28.

A Sure Bet—40 min—Shows correct way to install piston rings. Includes some entertaining examples of what not to do when working on an engine. Free loan—31.

Where Mileage Begins—19 min—Animated film describes gasoline engine operation, what happens when gears are shifted. Functions of parts are explained as an engine is assembled. Free loan—17.

Why Engines Are Governed—5 min—Defines relationship between horsepower and speed, explains purpose of engine governor. Free loan—41.

Fuels and Lubricants

Basic Principles of Lubrication—25 min—Explains basic theory and function of lubrication in the engine using U. S. Army trucks as examples. Shows how it reduces friction, cools moving parts, keeps power in the cylinder and prevents contamination and deterioration. Free loan—17. Rent—25.

It's Mighty Cheap Insurance—30 min—Color film on the reasons for and the advantages of regular oil change. Shows how engine is lubricated. Free loan—39.

Lubrication—30 min—Describes theory of friction and application of lubricants in a vehicle. Free loan—42.

Oil Films in Action—18 min—Technical film in color for engineers showing effect of oil film in bearing life. Free loan—17.

Slow Motion Study of Fuel Injection and Combustion in a Diesel Engine—33 min—Silent, advanced technical film on diesel engine fuel injection and combustion. Free loan—26.

Slow Motion Study of Normal Combustion, Preignition and Knock in a Spark Ignition Engine—33 min—Silent, advanced technical film on gasoline engine combustion. Free loan—26.

A Study of Combustion in a Spark Ignition Engine—17 min—Shorter version of the above film. Also silent. Free loan—26.

Thanks to the Atom—25 min—Tells how radioactive piston rings were used in motor oil development. Interesting for the data shown about piston ring lubrication function. Free loan—37.

The Why of Automobile Lubrication—24 min—Color film on why lubrication is necessary. Free loan—42.

Tools and Procedures

The ABC of Hand Tools, Part 1—18 min—Animated, color film shows (TURN TO NEXT PAGE, PLEASE)

New 8-Wheeler Moves More Mix Faster



This new Diamond T Tilt-cab with its "tandem-tandem" construction is used by J. K. Davison & Bro. of Pittsburgh, Pa., to boost ready-mix payload capacity. The specialized vehicle permits maximum gross vehicle weight under Pennsylvania law which allows 60,000 lb if the truck has four axles. Chassis weight of the tilt-cab is only 16,000 lb ready for the road including the extra FE900 front axle which was installed via the Spangler Conversion procedure. The 8 cu yd Rex mixer weighs 9985 lb. Weight distribution of the 8-wheeler fully loaded is 24,000 lb on the front axles and 36,000 lb on the rear. Tilt cab construction makes the engine fully accessible for maintenance while shortening over-all vehicle length by 3 ft.

Maintenance Films

Continued from Page 331

how to handle such tools as hammers, screwdrivers, pliers and wrenches. Free loan—17.

The ABC of Hand Tools, Part 2—15 min—Animated, color film shows how to handle such tools as files, saws,

chisels, planes, drills and punches. Free loan—17.

Add Power to Your Hands—20 min—Shows the "power" added through proper use of correct tools. Free loan—43.

Curve Control—8 min—Explains operation of various types of steering mechanisms. Rent—22.

For Safety's Sake—15 min—Demonstrates safe use of power-driven, hand tools. Rent—29, 34.

FWD Story—25 min—Color film showing principle and operation of Four Wheel Drive trucks. Free loan—14.

Grinding Cutter Bits—20 min—Color film shows correct way to grind tools for different lathe operations. Free loan—36.

The Grinding Wheel, Its Care and Use—17 min—Color film shows care and precautions necessary for efficient use of grinding wheels. Gives correct dressing procedures. Free loan—30.

Grinding Wheel Safety—20 min—Color film covers principal causes of grinding wheel breakage. Discusses selection of grinding wheels. Free loan—30.

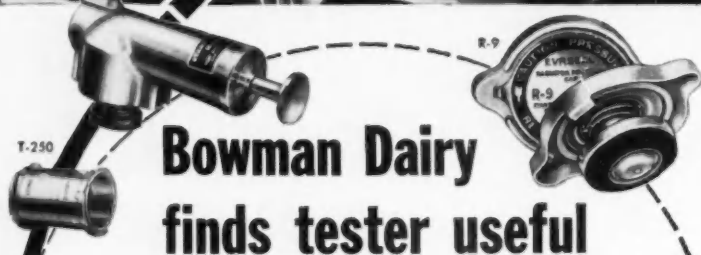
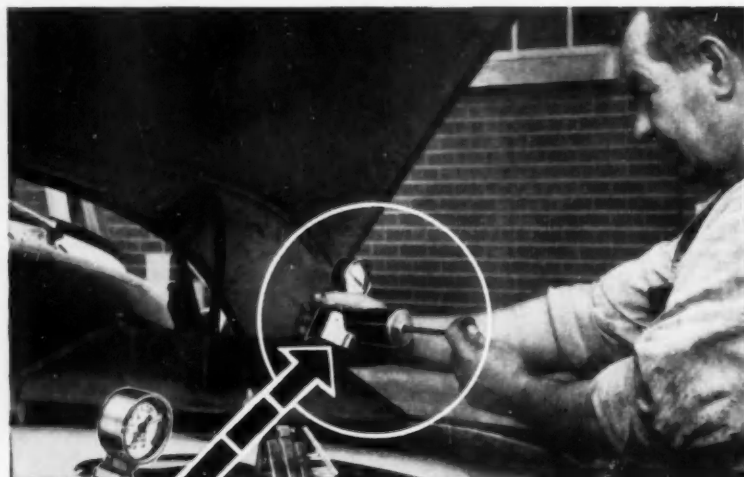
How to Form Aluminum, General Sheet Metal Practice—20 min—Bending, hammering, beading, flanging, edging and otherwise forming sheet aluminum, both manually and mechanically, is covered in this film dealing largely with industrial procedures. Free loan—3.

How to Machine Aluminum—32 min—Outlines practices employed in machining aluminum with hand and machine tools. Free loan—3, 42.

How to Rivet Aluminum—27 min—Explains procedures and techniques in riveting aluminum. Selection of various types of rivets is also included. Free loan—42.

Keep Them Rolling—8 min—Describes use of air-powered impact

(CONTINUED ON NEXT PAGE)



No wonder Bowman Dairy Company, large Chicago fleet, has a healthy respect for *Stant's* Precision Cooling System Tester. It exposed defective or wrong caps on two out of three units tested . . . bad hose, radiator leaks, etc. Keep *your* units rolling with preventive maintenance!

Write for report on *Kroger* findings to
STANT MANUFACTURING CO., INC.,
Connersville, Indiana,
... naming your jobber.

used on America's Finest Automobiles as
Standard Equipment for a generation

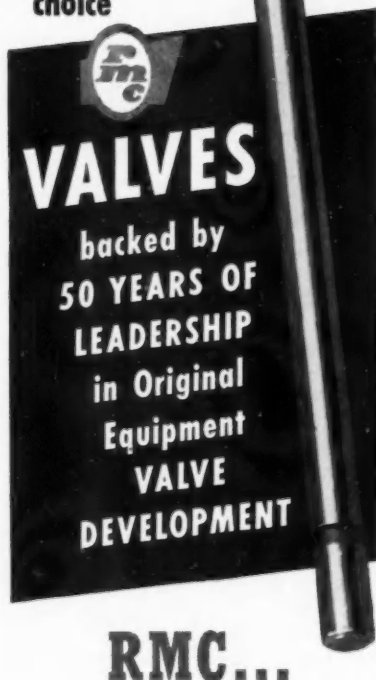


How Many Cases?



This International Model No. ACO-195A Sightliner with a full trailer hauls 6335 cases (76,032 bottles) in one load. System Motor Service, Saugus, Cal., uses the rig to deliver new bottles from a glass factory to the Kerns Food Co. With a BBC dimension of 48 in., system gets 48 ft of payload space even with California's 60 ft length limit.

Make your
replacement
choice



pioneer in the origination, engineering and development of the automotive valve . . . knows what's required of valves.

That's why **smc** two-piece exhaust valves, Stellite-faced and heat-banded valves and the new Aluminized valves can be relied upon for the best possible performance under the toughest operating conditions.

Next time, specify **smc** . . . the valves backed by more than a half century of know-how.

Make the job complete with RMC Valve Train Parts

VALVE SPRINGS VALVE SEATS
VALVE LOCKS ROTATOR VALVE KITS
VALVE GUIDES VALVE SPRING INSERTS

Warehoused in all principal cities. Sold by leading Replacement Parts Wholesalers everywhere.

FOR INFORMATION
WRITE TO

RICH MANUFACTURING CORP.
BATTLE CREEK, MICH.

Maintenance Films

Continued from Page 332

wrenches, hydraulic truck jacks and body repair tools in fleet maintenance. Free loan—6.

Making the Most of the Spray Painting Method—45 min—Illustrates the four basic principles of spray painting—proper equipment, control factors for high quality results, painting technique and equipment care, cleaning and maintenance. Free loan—9.

The Metalworking Lathe—20 min—Color film on basic metalworking lathe operation. Function of each part is described. Free loan—36.

Plain Turning—20 min—Color film illustrates all operations necessary in machining a shaft. Free loan—36.

Pliers—Their Use and Care—20 min—Illustrates proper use and care of pliers. Free loan—43.

Pulling for Profits—20 min—Demonstrates basic fundamentals of the NoSPIN differential. Shows how it operates. Free loan—8.

School Bus Operation, Part 1, Bus Care and Maintenance—13 min—Outlines points to be checked in daily and weekly maintenance of school buses. Free loan—13. Rent—19, 23, 25, 27, 38.

School Bus Safety—18 min—Discusses maintenance and operational (TURN TO PAGE 336, PLEASE)

"Shorty" Fuel Truck



Standard Oil Co. (Ind.) uses this new short model fuel oil delivery truck on its city runs where there are tight alleys. Built by the Farrell Mfg. Co., Joliet, Ill., it's only 19½ ft long but carries 1500 gal of oil. Turning radius is only 20.4 ft. Ford tilt cab chassis gives short wheelbase, easy maintenance. Pump equipment is on rear platform for faster delivery.



What Happens to Your Truck When It's Out of Sight?

Is time being wasted? Bad driving wearing out motors, transmissions and tires? Know the facts. Install on each of your vehicles a Model TCO 14.

ARGO TACHOGRAPH

The only 2-in-1 instrument on the market. Records minute by minute the starts, stops, speed and mileage on one side of a chart, and simultaneously the r.p.m.s of the motor on the reverse side. Gives a complete recording of every facet of a driver's performance.

A 7-day, around the clock, record of speed and mileage only is available in other ARGO models.

Tested for Millions of Miles

More than 500,000 ARGO Tachographs are in use all over the world, backed by hundreds of millions of miles of tough road work.

ARGO saves wear and tear on your motors, transmissions, tires. Saves fuel and oil. Saves hundreds of dollars a year in upkeep and operating costs.

Send this coupon for illustrated folder and prices.

EFFICIENT INSTRUMENTS CORP.
613 West 46th Street
New York 36, N. Y.

Name
Title
Company
City..... Zone..... State.....



EVER LOOK AT A BRAKE-BLOCK "BARGAIN" THIS WAY?

UNFORTUNATELY, some truck operators have never looked at it this way. And there are plenty of peddlers willing to take advantage of this short-sightedness. They pick up the proverbial fast-buck by peddling inferior brake blocks and linings loaded with potential disaster.

Unsuspecting jobbers, rebuilders and dealers are taken in without realizing how inferior the merchandise really is. Appearance makes this deception possible, since all brake blocks look the same. Even in a back-alley shop, without the help of scientific equipment, blocks and linings can be

made to *look* like top quality merchandise. Only an engineering specialist can recognize the difference. These deceiving good-looks, accompanied by cut-rate prices, complete the sale.

But using these inferior blocks and linings throws caution to the winds, because *only appearance* of top quality is imitated by the back-alley boys. Performance is another matter. The stopping power of cheap blocks may disappear after half a dozen fast stops. At best, early replacement is required. At worst—stark tragedy results.

Needless to say, no reputable businessman benefits from this kind of

replacement materials in the automotive after-market. Happily, there's a sure-fire way to avoid them. Buy only "name brand" brake blocks and linings—be it Bendix or one of the other *reputable* makes.

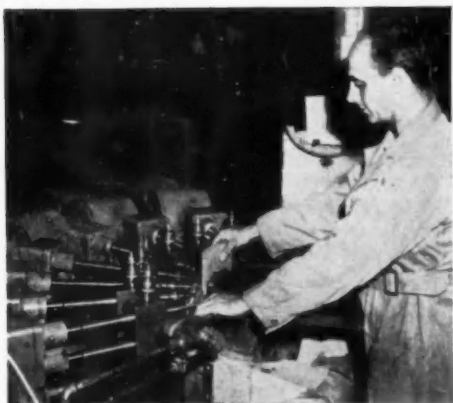
When you evaluate the quality of replacement blocks and linings, consider these facts: Automobile and truck manufacturers go to great lengths to protect their customers by installing only brake lining made by responsible people. And, because Bendix has so satisfied these manufacturers, our linings are used on more new vehicles than any other brand.

It takes more than a bucket
and a kitchen stove to
manufacture quality brake blocks

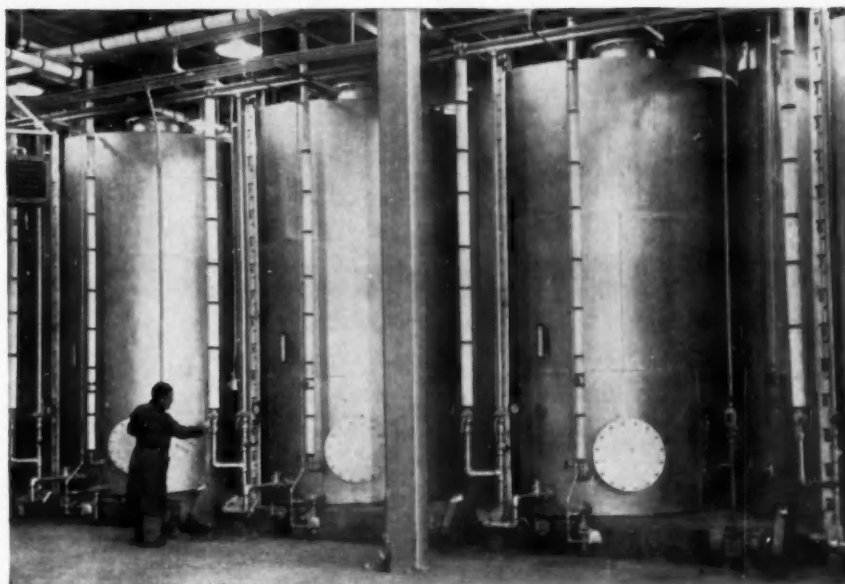


NOTHING IS LEFT TO CHANCE at Bendix-Eclipse when it comes to thorough testing of brake blocks. Special test trucks like this one measure braking characteristics of our blocks under every conceivable kind of operating condition.

ONE EXAMPLE of the precision equipment used in manufacturing Bendix-Eclipse brake blocks is a battery of special machine tools which drill and counter-bore block holes to the exact specifications required for perfect fits on various types of brake shoes.



AT BENDIX-ECLIPSE[®] brake blocks are formed in single and double wave molds under tons of pressure and rigidly controlled temperatures. Result: a uniform, dense, strong, and tough friction material.



LARGE QUANTITIES of special Bendix-manufactured resins are kept in these special storage tanks ready for use in Bendix-Eclipse brake linings and for sale to other industries.

[®]TRADEMARK

BENDIX-ECLIPSE

Marshall-Eclipse Division

Troy, New York



you can depend on...

100% "DRY-ICE" PROTECTION

As the sole refrigerant, rely on Pureco "DRY-ICE" for safe, dependable, dry-cold. Eliminates maintenance, light-weight—no pay load. Several types of "DRY-ICE" bunkers available.

AUXILIARY REFRIGERATION

Use "DRY-ICE" to supplement mechanical units and eliminate "hot spots".

EMERGENCY REFRIGERATION

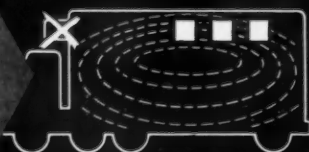
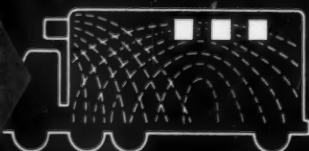
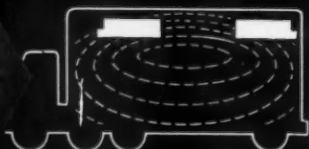
Use "DRY-ICE" when mechanical parts break down. No spoilage. It handles easily and is quickly available through the Pureco network of depots.

You can count on Pureco "DRY-ICE"... and Pureco service. Pureco Technical Sales Service will be glad to study your particular refrigeration problems and help you solve them.

Remember—over 100 Pureco depots from coast to coast are your assurance of dependable deliveries of "DRY-ICE". Pureco distribution points are all listed in a handy booklet—call or write today for your copy.

ANY WAY YOU USE IT

DRY-ICE
TRADE MARK



Pure Carbonic Company

A division of Air Reduction Company, Incorporated
Nationwide "DRY-ICE" service-distributing stations in principal cities
GENERAL OFFICES: 150 EAST 42nd STREET, NEW YORK 17, N. Y.

AT THE FRONTIERS OF PROGRESS YOU'LL FIND AN AIR REDUCTION PRODUCT

Maintenance Films

Continued from Page 333

procedures for school buses. Includes material on transporting school children safely. Rent—18, 44.

Simply Awful or Awfully Simple—20 min—Color film demonstrates mounting and demounting of tubeless tires including new 14 and 15-in. rims. Free loan—48.

The Truck That Tips Its Cab to Service—30 min—Describes how the White tilt cab operates. Free loan—47.

Tube Cutting, Flaring and Bending—20 min—Color film showing proper way to make tubing repairs—11.

Use and Care of Hacksaws—18 min—Shows proper use and care of hacksaws, and accident hazards to be avoided in their use. Free loan—33. Rent—29.

(TURN TO PAGE 338, PLEASE)

Michigan's Driver of the Year



Chester E. Searing, Lansing, Mich., has been chosen as Michigan's Driver of the Year. He has been a driver for Inter-City Trucking Service, Inc., Detroit for the past 23 years and has completed 1,185,000 miles without an accident of any kind. More than 350 state legislators, officials, and community and business leaders were on hand at the Michigan Trucking Association's driver-awards banquet to see Governor G. Mennen Williams present the Driver of the Year trophy to Searing. The award automatically qualifies Searing for consideration this fall as American Trucking Association's National Driver of the Year.



White superservice man pulls truck parts out of the air

White superservice can put wings on the parts this mechanic needs for your truck . . . so you get it back on the road in a matter of hours!

White superservice shops are the most completely equipped in the industry. But if there's a part we *don't* have in stock . . . it's there, by air! Fast! Our teletype network between factories, branches and distributors is alert 24 hours a day to supply immediately whatever is needed for re-

pairs, rebuilding or engine exchange.

White superservice men know the big engine in your truck like a doctor knows his anatomy chart. And they are ready any time to put your ailing truck back into top operating "health" in a hurry.

No matter where your truck may break down . . . all you have to do is call the nearest WHITE service shop—and your worries are over! And, if you want to end your worries

permanently you can take advantage of a WHITE preventive maintenance agreement.

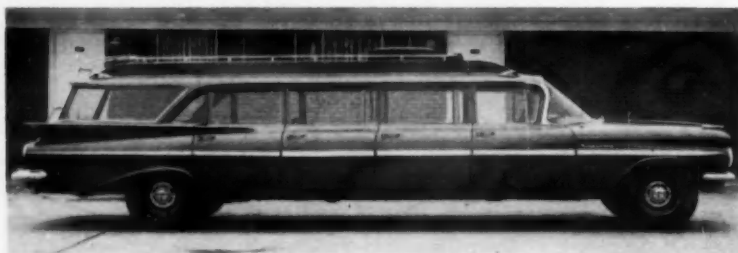
Whether you enjoy the superiority of WHITE or AUTOCAR trucks, the superiority of WHITE SUPERSERVICE is yours for the asking. So why not start today? You'll be glad you did, now and in the long haul.

THE WHITE MOTOR COMPANY
CLEVELAND 1, OHIO

Branches, distributors, dealers in all principal cities

WORLD LEADER IN HEAVY DUTY TRUCKS

WHITE



Stagecoach Chevrolet

Here's one of the '59 model Stagecoach airport cars. It's made by the Queen City Chevrolet Co., Cincinnati, Ohio. The 15-passenger wagon has a 250 hp engine and four-speed transmission. It has four doors on the right side, two on the left. Length is 24 ft 2 in.

Maintenance Films

Continued from Page 336

Use and Care of Hammers—11 min—Shows proper use and care of hammers, and accident hazards to be avoided in their use. Free loan—33. Rent—29.

Use and Care of Chisels—12 min—Shows proper use and care of chisels, and accident hazards to be avoided in their use. Free loan—33. Rent—29.

Use and Care of Pliers and Screwdrivers—17 min—Shows proper use and care of pliers and screwdrivers, and accident hazards to be avoided in their use. Free loan—33. Rent—29.

Use and Care of Punches, Drifts and Bars—14 min—Shows proper use and care of punches, drifts and bars, and accident hazards to be avoided in their use. Free loan—33. Rent—29.

Use and Care of Wrenches—20 min—Shows proper use and care of wrenches, and accident hazards to be avoided in their use. Free loan—33. Rent—29.

Welding Techniques

Advanced Welding Techniques—10 min—Shows selection of electrodes for AC welding. Demonstrates practical aspects of welding techniques. Free loan—46.

Advantages of AC Welding—19 min—Easy to understand presentations in color of principles and applications of AC welding of iron and steel. Free loan—46.

Arc Welding Aluminum—10 min—Explains techniques for metal, carbon and hydrogen arc welding of aluminum. Free loan—3, 42.



GUNK[®] Hydro-Seal

the original and still the
best metal cleaner
and paint stripper



Now in 3 Gallon and 6 Gallon size carburetor bench kits with basket . . . also 1 Gallon cans.

For easier cleaning of Automatic Transmission and Engine parts, GUNK H.S. is supplied in 30 and 55 Gallon size open-head drums which are ideal immersion tanks. Heavy duty baskets are available for easy handling of parts. The replenishable floating-seal makes GUNK H.S. last longer . . . Powerful self-scouring action SAVES LABOR!

Write us today for complete information

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GUNK CHICAGO CO., River Forest, Illinois

serving the Midwest and Southwest

RADIATOR SPECIALTY CO., Charlotte, No. Carolina

serving the East, Southeast and far West

Arc Welding Stainless Steel—20 min—Explains technique for electric arc welding of stainless steel. Free loan—1.

How to Weld Aluminum, Resistance Welding—12 min—Explains technique of resistance welding aluminum. Free loan—3, 42.

How to Weld Aluminum, Torch Welding—17 min—Explains technique of torch welding aluminum. Free loan—3.

The Inside of Arc Welding—6 parts, each 10 min—Film No. AS-2481 covers arc welding fundamentals; the other five show fillet and groove welding in flat position—Film No. AS-2482, horizontal position—Film No. AS-2483, vertical position—Film No. AS-2485, overhead position—Film No. AS-2486, and Film No. AS-2484 describes use of larger electrodes. In color. Free loan—16.

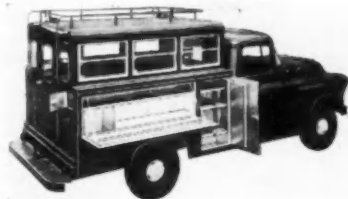
New Horizons in Aluminum Brazing—22 min—Color film illustrates advantages of and how to join aluminum parts by brazing. Free loan—3.

New Welding Procedures—19 min—Color film showing step-by-step procedures on welding rod and electrode techniques. Torch and metallic arc welding are shown as well as chamfering, cutting, grooving. Free loan—12.

Prevention and Control of Distortion in Arc Welding—20 min—Explains how to overcome metal distortion in arc welding. Free loan—24.

(TURN TO NEXT PAGE, PLEASE)

Surveyor Body



Designed specifically for surveying parties, this new body is made by the Utility Body Co., Oakland, Cal. It has three opening windows on each side, four seats, dome light, and insulated roof. The body is fully compartmentalized for storing surveying instruments. Long shelves are lined with masonite to protect rods and tripods. Other shelves are lined with rubber or plywood to meet customer's axles.

COMMERCIAL CAR JOURNAL, April, 1959



This New Door Guide Can Cut Costs at Every Opening!

Write today for this complete up-to-the-minute information on:

KINNEAR Steel Rolling Doors—with the coiling upward action of the famous interlocking-steel-slat curtain (originated by Kinnear). They save space, save time, provide all-metal protection.

KINNEAR Rolling Fire Doors—the exclusive, all-steel "Akbar" doors, famous for positive starting action, safe closing speed, other advanced features.

KINNEAR Steel Rolling Grilles—the protective openwork of steel bars and links with coiling upward action. Admits light, air, and vision when closed—but blocks all intruders.

KINNEAR Motor Operators—Special, rugged, heavy-duty motors that add time-saving push-button control to the many other advantages of upward-acting doors.

KINNEAR Bifold Doors—Heavy-duty service doors of wood or all-steel. Center-hinged to fold upward with easy jack-knife action.

KINNEAR Rol-Top Doors—Sectional doors (wood or all-steel) available paneled for glass in any number of sections.

Write TODAY

The KINNEAR Mfg. Co.

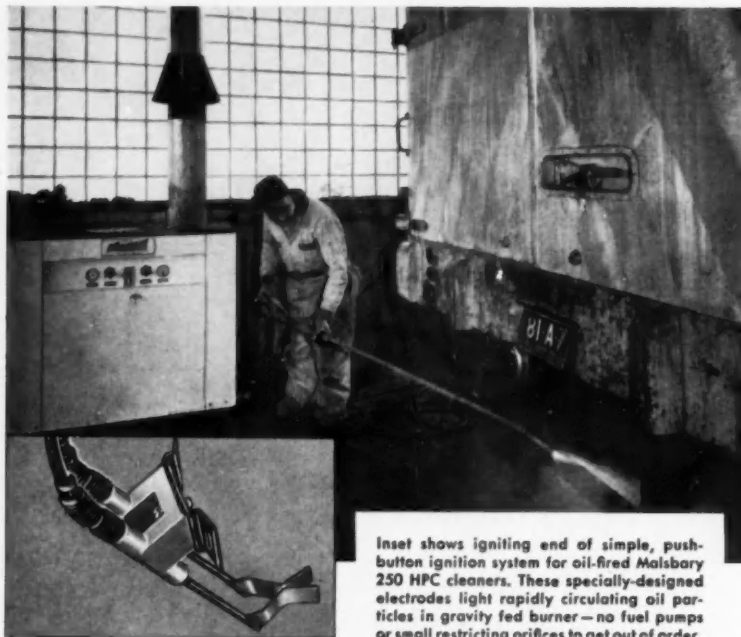
FACTORIES:

2100-20 Fields Avenue, Columbus 16, Ohio

1742 Yosemite Ave., San Francisco 24, Calif.

Offices and Agents in All Principal Cities

KINNEAR
ROLLING DOORS
Saving Ways in Doorways



Inset shows igniting end of simple, push-button ignition system for oil-fired Malsbary 250 HPC cleaners. These specially-designed electrodes light rapidly circulating oil particles in gravity fed burner—no fuel pumps or small restricting orifices to get out of order.

NOW! Fool-proof Push-Button ignition on nationally recognized leader in high pressure cleaning field

Malsbary Oil-Fired Model 250 Steam Cleaner

Combines instant starting and powerful dirt-blasting action

If you steam clean 4 hours or more daily, you need a Malsbary High Pressure Combination cleaner—it pays off BIG. Here's why: Its hard-hitting cleaning steam cleans fast, and you have a choice of 5 distinct cleaning actions... just push the button and, presto, you have available a cleaning action that's right for any job. For example:

EXPLOSIVE SUPERHEATED SOLUTION (240 gph at 300 psi) to remove stubborn tars and corrosive greases.

HIGH PRESSURE COLD WATER (360 gph at 300 psi) to cold rinse and jet away caked mud.

HIGH PRESSURE HOT WATER for de-icing and removing mud.

LOW PRESSURE WET STEAM (15 boiler hp) for de-gassing and heating.

LOW PRESSURE WARM WATER for warm rinsing and hand washing of vehicles.

Thousands of users say no other cleaner in its price range matches the Malsbary 250 High Pressure Combination cleaner for speed and effectiveness. Hundreds of repeat buyers confirm this.

MONEY-BACK OFFER. Oil-fired Model 250's are tricycle, trailer or stationary mounted, gas-fired, stationary also available. Why not see what the Model 250 HPC will do for you? It's easy. You buy a Model 250; if after 10 days use you aren't completely satisfied that it does reduce cleaning costs, return it, and our dealer will refund your money. Call him now (see yellow pages of phone book) or write us.

123

**Makers of steam cleaners,
steam generators, industrial
hot water heaters**



845 - 92nd Ave., Oakland 3, Calif.

Maintenance Films

Continued from Page 339

Resistance Welding of Stainless Steel—22 min—Color film describes spot, seam, projection and butt resistance welding of stainless steel. Free loan—1.

Safety for Welders—7 min—Illustrates protective clothing and equipment for welders to prevent eye injuries and metal fume poisoning. Rent—21, 32.

A Story of Arc Welding—24 min—Color film on various uses, techniques and theory of arc welding. Many automotive scenes are included. Free loan—42.

This Is Resistance Welding—25 min—Color film describing resistance welding techniques. Ask for Film No. AS-2583. Free loan—16.

Welding, the Safe Way—18 min—Training film for new welders illustrates safe working conditions for most welding operations. Rent—29.

SOURCE LIST

NUMBERS refer to the numbers at the end of the description of each film. Where more than one source is given, write to the closest address.

1. Allegheny-Ludlum Steel Corp.
2020 Oliver Bldg.
Pittsburgh 22, Pa.
2. Allis-Chalmers Mfg. Co.
Adv. and Industrial Press Dept.
Milwaukee 1, Wis.
3. Aluminum Co. of America
Motion Picture Section
854 Alcoa Bldg.
Pittsburgh 19, Pa.
4. Bendix Westinghouse Automotive
Air Brake Co.
901 Cleveland Rd.
Elyria, Ohio
5. Champion Spark Plug Co.
Sales Dept.
Toledo 1, Ohio

COMMERCIAL CAR JOURNAL, April, 1959

6. Chicago Pneumatic Tool Co.
Advertising Dept.
6 East 44th St.
New York 17, N. Y.
7. Continental Motors Corp.
Att.: Howard Johnson
205 Market St.
Muskegon, Mich.
8. Detroit Automotive Products Corp.
8701 Grinnel Ave.
Detroit 13, Mich.
9. DeVilbiss Co.
300 Phillips Ave.
Toledo 1, Ohio
10. Electric Auto-Lite Co.
Advertising Dept.
Toledo 4, Ohio
11. Imperial Brass Mfg. Co.
6300 W. Howard St.
Chicago 31, Ill.
12. Eutectic Welding Alloys Corp.
40-40 172nd St.
Flushing 58, N. Y.
13. Nationwide Mutual Insurance Co.
Safety Dept.
246 North High St.
Columbus 16, Ohio
14. FWD Corp.
Clintonville, Wis.
15. Fuller Mfg. Co.
Transmission Div.
Service Sales Dept.
Kalamazoo, Mich.
Contact local White Motor Co.,
GMC Truck & Coach Division
International Harvester Co. or
Diamond T Truck Co. branch
(TURN TO NEXT PAGE, PLEASE)

Need a Lift?



The Marine Corps motor pool at Islais Creek in San Francisco uses a Watson Towmaster to tow "moth-balled" combat vehicles across the Bay Bridge to and from Oakland, Cal. The unit fits on the fifth wheel when in use and is removed when the truck is being used in tractor-trailer service.

ROSS and WHITE BONUS VALUE "WILSON" PORTABLE WASHERS

- Can be used indoors or outdoors on front, sides and back of Trucks and Trailers.
- Wash Faster and Cleaner—Revolving brush scrubs out damaging road grime.
- Reduces Washing time up to 80%.



This "Wilson" Portable Washer has a swivel mounted brush for thoroughly cleaning horizontal or vertical ribbed trailers... will wash a trailer completely in 3 minutes.

Junior "Wilson" with swivel mounted brush is ideal for the small fleet or the fleet with limited space.

Manufacturers of:
"Blackhall" Stationary Washers
"Front, Sides & Back" Trailer Washer
"Wilson" Portable Washers
"Buck" Cyclone Cleaners

RW AND WHITE

COMPANY

Chicago Daily News Building
Chicago 6, Illinois

Ross and White "Wilson" Portable Washers are designed to give you more "Bonus Value" features in cost-cutting operation and long-lasting, trouble-free performance.

You can move them anywhere... In the garage—in the yard—around the dock—you get a time-saving, schedule-keeping advantage that means more profit to you.

If you want versatility with "Bonus Value" performance in your washing equipment, mail the coupon below Today for the full "Bonus Value" Portable Washer story.

ROSS and WHITE Company, Dept CC-4
Chicago Daily News Building, Chicago 6, Ill.
☐ Send me full information on the "Wilson" Portable Washer.
☐ Send me full information on the Junior "Wilson" Portable Washer.

Name.....Title.....

Company.....

Address.....

City.....Zone.....State.....

Maintenance Films

Continued from Page 341

16. General Electric Co.
Adv. and Sales Prom. Div.
Distribution Section
Schenectady 5, N. Y.

17. General Motors Corp.
Dept. of Public Relations
Film Section

New York and Long Island
1775 Broadway
New York 19, N. Y.

Eastern States
General Motors Bldg.
Detroit 2, Mich.

Western States
508 San Francisco Bank Bldg.
405 Montgomery St.
San Francisco 4, Cal.

18. Univ. of Illinois
Audio-Visual Aids Service
Div. of Univ. Extension
Champaign, Ill.

19. Indiana Univ.
Audio-Visual Center
Div. of Adult Education
1804 East 10th St.
Bloomington, Ind.

20. International Harvester Co., Inc.
180 North Michigan Ave.
Chicago 1, Ill.

21. State Univ. of Iowa
Bureau of Audi-Visual Inst.
Extension Div.
Iowa City, Iowa

22. The Jam Handy Organization
2821 East Grand Blvd.
Detroit 11, Mich.

23. Univ. of Kansas
Bureau of Visual Instruction
Lawrence, Kan.

24. The Lincoln Electric Co.
12818 Coit Rd.
Cleveland 1, Ohio

25. Michigan State University
Audio-Visual Center
East Lansing, Mich.

26. National Advisory Committee for
Aeronautics
1724 F St., N. W.
Washington 25, D. C.

27. National Board of Fire Under-
writers
Film Library

East of Rocky Mts.
Bureau of Communication Re-
search
13 East 37th St.
New York 17, N. Y.

West of Rocky Mts.
Merchants Exchange
San Francisco 4, Cal.

28. Union Carbide Corp.
Div. of Union Carbide and Chemi-
cal Corp.
30 East 42nd St.
New York 17, N. Y.

29. National Safety Council
Film Bureau
425 North Michigan Ave.
Chicago 11, Ill.

30. Norton Co.
Publicity Dept.
Worcester, Mass.



K-D TOOLS

MAKE HARD JOBS EASY

**K-D 440 MOLDING CLIP
INSTALLING TOOL**



Installs this clip.

Specially designed for late Chevrolet, Buick, Olds, Pontiac.

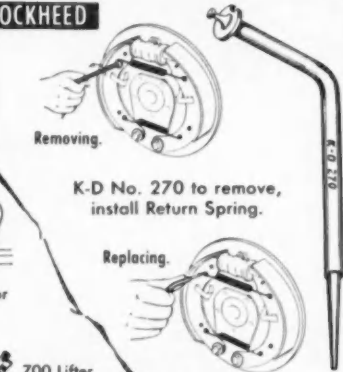
BENDIX



K-D No. 280 to remove, install Return Springs.

Removing. Replacing.

LOCKHEED



K-D No. 270 to remove, install Return Spring.

Removing. Replacing.

NEW USES FOR "OLD" TOOLS

Servicing valves on small foreign motors.





380 Compressor (also 385 Compressor)

383 Compressor

700 Lifter

NEW CATALOG Just out! 24 pages full of famous K-D "hustlers for your toolbox". Write today for your free copy...to...K-D Tools, Lancaster, Pa.

31. Perfect Circle Corp.
School Assistance Dept.
Hagerstown, Ind.
32. Princeton Film Center
Princeton, N. J.
33. Proto Tool Co.
2209 Santa Fe Ave.
Los Angeles 54, Cal.
34. Sarra, Inc.
16 East Ontario St.
Chicago 11, Ill.
35. Shell Oil Co.
Film Library, Room 4226
50 West 50th St.
New York 20, N. Y.
36. South Bend Lathe Works
425 East Madison St.
South Bend 22, Ind.
37. Standard Oil Co. of Cal.
Marketing Dept., Lubricant Div.
Standard Oil Bldg.
San Francisco 20, Cal.
38. Univ. of Tennessee
Div. of Univ. Extension
Univ. Film Library
Knoxville, Tenn.
39. The Texas Co.
Public Relations Dept.
135 East 42nd St.
New York 17, N. Y.
40. Raybestos Division
Raybestos-Manhattan, Inc.
P. O. Box 1021
Bridgeport, Conn.
41. U. S. Army
Signal Officer

First Army
Governors Island
New York 4, N. Y.

(TURN TO NEXT PAGE, PLEASE)

CCJ

Shop Foreman: "Sam, you look a little red-eyed this morning. If you weren't a mature and emotionally stable person one would think you'd been crying."

Shop Roustabout: "I'm ashamed to admit it, but I shed quite a few bitter tears last night."

Shop Foreman: "What for, pray tell me."

Shop Roustabout: "It was the book I read, Forever Amber."

Shop Foreman: "But Forever Amber isn't a sad book."

Shop Roustabout: "It is at my age."

MOHAWK

TRUCK TIRES



"bonus built" for more go-power

Rocks, broken timbers, sharp metal, mud and much — that's the roadbed truck tires travel on construction jobs. Ordinary tires haven't a chance under these conditions.

That's where Mohawk Truck Tires pay off. They're "bonus built" to perform under the toughest conditions. Take the Motrac Truck Tire shown above. Here is a brute for heavy work. Its all-nylon carcass is extra strong to take the roughest shocks. Its husky tread is specially compounded to resist cutting, cracking and chipping.

Equally at home on or off the road, the Motrac delivers maximum

original miles. And, like all Mohawk truck tires, it is made to take recap after recap, the result of Mohawk's experience as a leading manufacturer of retread rubber and truck tire repair materials.

Get "bonus" tire mileage from your trucks. Equip them with Mohawks. See your local independent Mohawk dealer. He is an expert on truck tires and their repair.

The MOHAWK RUBBER Co.
Akron 5, Ohio

PLANTS IN
AKRON, OHIO • HELENA, ARKANSAS
STOCKTON, CALIFORNIA

There's a Mohawk Truck Tire for every hauling need... Each unconditionally guaranteed in writing!



Why CENTURY provides the best LP-Carburetion Systems

1 ONLY U/L APPROVED INTEGRAL FILTER FUELOCK SYSTEM AVAILABLE

The ultimate in filtering action is guaranteed with the exclusive Century triple action chamois-felt-screen system. These fuel locks require only one simple installation procedure. Full range from only two basic models for all type engines.



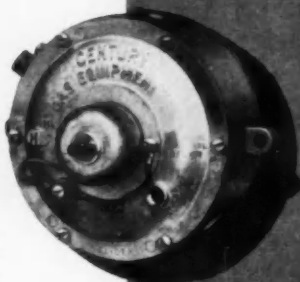
2 THE ONLY FUEL METERING VALVE TYPE CARBURETOR AVAILABLE

These special LP-Carburetors guarantee correct air-fuel mixtures at any altitude, temperature, speed and power range. Exclusive sealed roller bearings on throttle shaft insure extra long use. The Century carburetor is designed to replace the gasoline carburetor for peak performance and economy on LPG.



3 HIGH CAPACITY CONVERTER, MOST COMPACT MOST DEPENDABLE

These sturdy light weight converters consistently generate more horse power, yet are the lightest weight units on the market. More compact too . . . regulator and vaporizer all in one unit. Easier to install . . . requires only one line between carburetor and converter.



CENTURY . . . The Most Complete Line Available...Simplest to Install...Easier to Buy...Models for All Size and Type Vehicles

Ask the Man from Century for installation tips... on the spot service



Export Sales: Sin Par Automotive Div.
Singer Products Co.
15 Moore St., New York 14, N. Y.

CENTURY GAS EQUIPMENT
Marvel-Schebler Products Div.
Borg-Warner Corporation
Decatur, Illinois

Maintenance Films

Continued from Page 343

Second Army
Fort Meade, Md.

Third Army
Fort McPherson, Ga.

Fourth Army
Fort Sam Houston, Texas

Fifth Army
1660 East Hyde Park Blvd.
Chicago, Ill.

Sixth Army
Presidio of San Francisco
San Francisco, Cal.

Military District of Washington
Washington 25, D. C.

42. U. S. Bureau of Mines
Graphic Services Station
4800 Forbes St.
Pittsburgh 13, Pa.

43. Utica Drop Forge & Tool Co.
Utica 4, N. Y.

44. Commonwealth of Virginia
State Board of Education
Film Production Service
Richmond 16, Va.

45. Wagner Electric Corp.
6400 Plymouth Ave.
St. Louis 14, Mo.
Or contact local factory Branch

46. Westinghouse Electric Corp.
Film Div.
Box 868, 511 Wood St.
Pittsburgh 30, Pa.

47. The White Motor Co.
Sales Promotion Dept.
842 East 79th St.
Cleveland 1, Ohio

48. American Grease Stick Co.
Muskegon, Mich.

49. The Cummins Engine Co.
1000 5th St.
Columbus, Ind.

50. Mustang Engines
100 International Rd.
Garland, Tex.

White Trims Weight . . .

Continued from Page 60

hood, air cleaner housing, floor boards, mirrors, radiator frame, dash panel, disc wheels, and closure panels.

Other weight-saving components available include fiberglass reinforced plastic fenders and engine cover, air starter, steel fabricated brake shoes, tubeless tires, lightweight "K" brake.

One major feature of the new "Ultra" lightweight models is that you don't have to "buy" the whole lightweight package. You can pick and choose so as to get best payload and cube to fit your operation.

Engine for both the 4400TDL and 9000TDL is a special lightweight version of Cummins NH180 . . . the NH180L featuring aluminum flywheel housing, gear case covers, oil pan and intake manifold as mentioned above. It has 672 cu in. displacement with maximum rating of 180 bhp at 2100 rpm and 540 ft lb torque at 1500 rpm. Two other lightweight engines are available as options—the NH195L and the NH220L.

Standard specs for the new models include 10-speed RA63 RoadRanger transmission, White's 115D 8500-lb capacity front axle, White's 124CL single reduction rear axle, 8¼ x 2 15/16 x ¼-in. alloy steel frame, 52-gal aluminum fuel tank, 10.00-22.5 tubeless tires, aluminum disc wheels and hubs. A full choice of options are available.

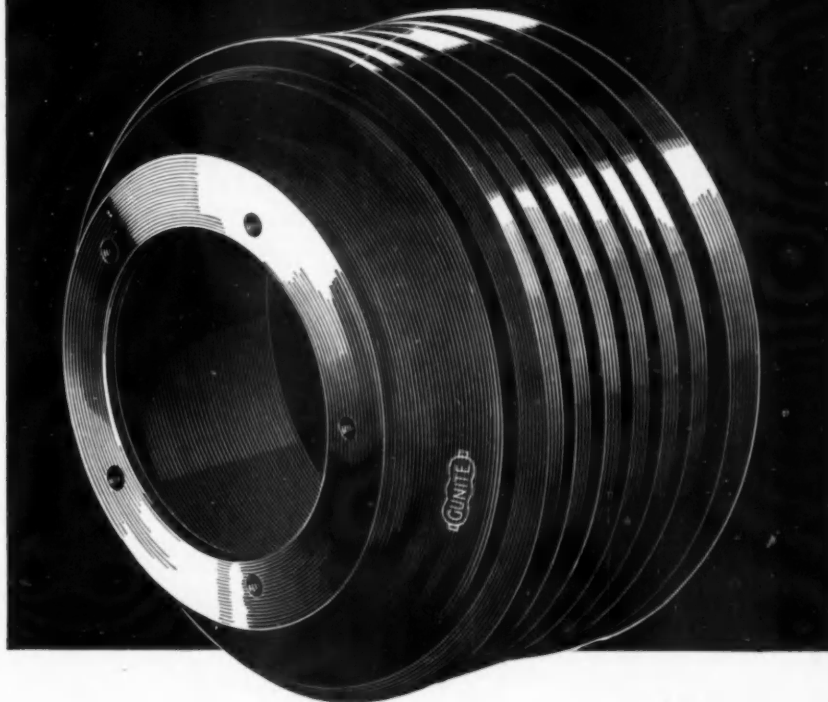
Standard wheelbase for the 4400-TDL is 140 in. with options up to 212 in. For the 9000 TDL, 138½ in. is standard with options up to 162½ in.

CORONER: "WHAT WERE YOUR HUSBAND'S LAST WORD'S."

MECHANIC'S WIDOW: "HE SAID, 'I DON'T SEE HOW THEY CAN MAKE A PROFIT ON THIS STUFF AT A DOLLAR AND A QUARTER A FIFTH.'"

GUNITE

BRAKE DRUMS



Save . . . mile after mile . . . with rugged, dependable Gunite Brake Drums. Special alloy metal . . . plus "performance-proved" rib design . . . outwears, outperforms ordinary drums. Brakes stay cooler, more efficient, safer . . . brake and drum maintenance costs are substantially less! Over 800 sizes and types of Gunite heavy duty brake drums are available!

Don't wait . . . call the Gunite distributor in your area TODAY!

THE FULL LINE MANUFACTURER OF
HEAVY DUTY BRAKE DRUMS AND WHEELS

GUNITE

GUNITE FOUNDRIES CORPORATION

Rockford • Illinois

Established 1854

CERTIFIED

SIoux

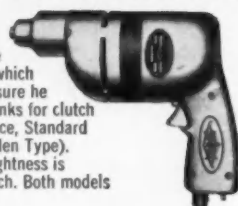
POWER

Electric Drills

SIoux ELECTRIC SCREWDRIVERS

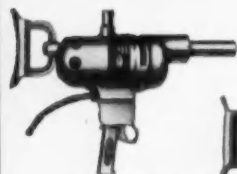
NO. 260 - 262

On No. 260 Super Screwdriver the operator controls the tightness with which a screw is set by the amount of pressure he applies. The 1/4" Hex Drive takes shanks for clutch head screwdriver bits, Reed and Prince, Standard screws, Phillips, and socket head (Allen Type). On the No. 262 Super Screwdriver tightness is pre-determined by adjusting the clutch. Both models equipped with reversing switch.



NO. 242

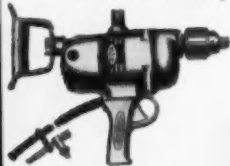
It fits the hand, and operates in restricted space like no other electric screwdriver. It quickly drives or removes all types of screws. No. 242 has a positive clutch; the operator controls the tightness by the amount of pressure applied. No. 246 has an adjustable clutch, so that it can be preset for any uniform degree of tightness desired.



**1" H.D. DRILL
No. 1579**



**3/8" & 3/4"
H.D. DRILLS
No. 1560, 1575**



**1/2" H.D. DRILL
No. 1550**

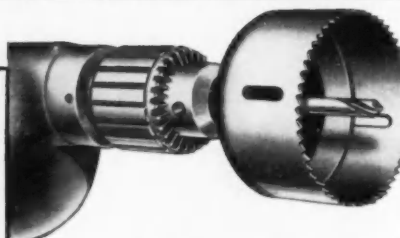


**1/2" STD.
DUTY DRILL
No. 1510**



**3/8" & 5/16"
H.D. DRILL
No. 1517, 1519**

**1/2" SLOW SPEED
DRILL No. 1548**



SIoux HIGH-SPEED STEEL TEETH HOLE SAWS

will cut holes from 3/8" to 6" in diameter, in any free machining material to a depth of 1 1/4". Alloy or stainless steel may be cut at slow speed. High-Speed teeth welded to chrome-vanadium body give maximum life and cutting ability.

POWER* SPECIFICATIONS SIoux ELECTRIC DRILLS

When it's a SIoux you know what it will do

Catalog Number	No Load Speed	H.P. and R.P.M. at Load Speed	Oz. Ft. Torque at Load Speed	H.P. and R.P.M. at Peak Load Speed	Oz. Ft. Torque Peak Load
1475	2250	5/64 1525	4.9	7/64 1050	8.8
1480	1600	7/64 1140	7.9	5/32 790	16.8
1485	1650	3/32 1060	6.9	1/8 620	16.7
1495	1650	3/32 1060	6.9	1/8 620	16.7
1498	400	3/16 275	45.0	9/32 215	108.0
1510	525	27/64 370	95.0	39/64 230	222.0
1517	925	13/32 670	49.0	9/16 540	135.0
1519	1250	13/32 860	37.5	9/16 500	96.0
1525	1650	5/16 1060	31.0	3/8 680	45.0
1541	925	13/32 670	49.0	9/16 540	85.0
1548	525	27/64 370	95.0	39/64 230	222.0
1550	525	7/16 325	108.0	17/32 175	252.0
1560	400	9/16 260	175.0	3/4 155	400.0
1575	400	3/4 205	308.0	1-1/8 125	748.0
1579	350	49/64 200	315.0	1-9/64 115	800.0
1472	1600	13/64 960	17.8	17/64 720	32.4
1473	950	13/64 575	31.6	17/64 430	55.0
1474	625	13/64 375	44.6	17/64 280	84.2
1477	950	13/64 575	31.6	17/64 430	55.0
1478	625	13/64 375	44.6	17/64 280	84.2
1479	1600	13/64 960	17.8	17/64 720	32.4



*for complete specifications

**SEE THE
NEW
SIoux
CATALOG**

when it's a SIOUX

You know what it will do!

The Horsepower and torque for each Sioux drill is rated, stated, and certified. It isn't necessary to buy just a drill. When it's a Sioux you know what it will do. See the power specifications for Sioux Electric Drills in this advertisement.

NEW

Super Powered 1/4" and 3/8" DRILLS!

Here is super power to provide all the torque necessary for any operation where this type of drill would normally be used. (See specifications) And there's a speed for every need. It's an entirely new design in which the brushes have been located at the fan position at front of the drill. The advantages include cooler running, and easier inspection and replacement of motor brushes without partial or complete disassembly of the tool. Ball and roller bearing construction, with finest precision gears and mechanical design have achieved a new high in output efficiency.



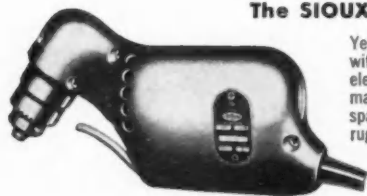
1/4" No. 1472,
1473, 1474



3/8" No. 1477,
1478, 1479

All time sales champ

The SIOUX No. 1495 1/4" ALL ANGLE DRILL



Year after year this is a top seller in the SIOUX line. It's popular with almost everyone—auto mechanic, sheet metal worker, electrician, shipbuilder, woodworker, assembly line, factory maintenance man. It fits the hand and operates in restricted space like no other tool. It's a most convenient handful of rugged power.



Leading distributors everywhere display and sell Certified SIOUX power drills.

AUTHORIZED SERVICE AND DISTRIBUTORS IN PRINCIPAL CITIES



ALBERTSON & CO., INC.

SIOUX CITY, IOWA, U. S. A.

AIR IMPACT WRENCHES • AIR SCREWDRIVERS • "PELICAN" NUT ACCUMULATORS • ELECTRIC IMPACT WRENCHES • DRILLS • GRINDERS • SANDERS • POLISHERS • VALVE FACE GRINDING MACHINES • SCREWDRIVERS • PORTABLE SAWS • FLEXIBLE SHAFTS • ABRASIVE DISCS



3/8" H.D. DRILL
No. 1541

1/4" H.D. DRILL
No. 1525
BALL BEARING



1/4" H.D. DRILL
No. 1480 SEMI
BALL BEARING

1/2" LT.
DUTY DRILL
No. 1498



1/4" DRILL
No. 1485

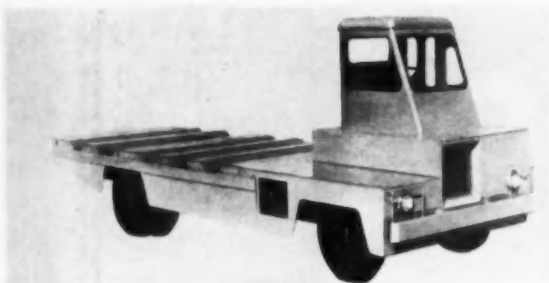


1/4" DRILL
No. 1475

NEW

PRODUCTS

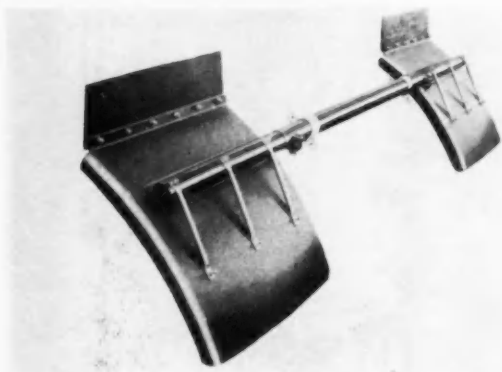
DESCRIBING RECENTLY ANNOUNCED PRODUCTS AND EQUIPMENT OF INTEREST TO MEN CONCERNED WITH TRUCK, BUS AND CONSTRUCTION FLEET MANAGEMENT



Platform Truck

*from Fox Body Co.
Janesville, Wis.*

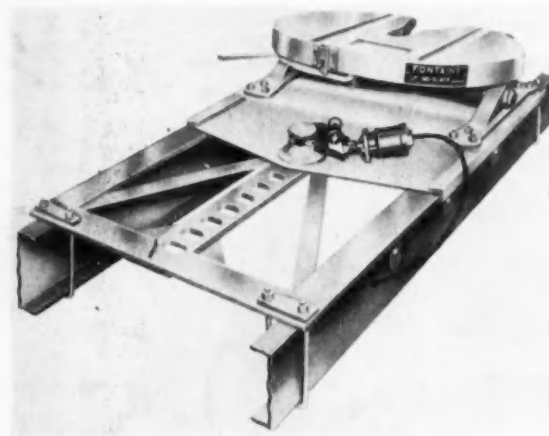
is specifically designed for hauling lumber and similar loads in bundled or palletized units. New truck is called the Lift-Dek and features a platform which is said to be up to 14 in. lower than other platform trucks. In addition, a special lift between the frame members tilts the platform to within 4 in. of the ground so that loads can be slid off without damage. The Lift-Dek also has corrugations in the platform bed to allow lift truck loading, with no pallets or blocking necessary. The half cab permits 24 ft. loads to be carried beside the cab.



Cab Guard

*from Midwest General Corp.
440 E. Jefferson Ave.
Detroit 26, Mich.*

protects cab and under-carriage from stone, mud, road tar and other highway debris thrown forward by the drive wheels. Flaps are 25 in. wide to cover 10.00 x 20 dual wheels. Named the Cab Guard, it is made of 16 gage cold rolled steel, comes in a kit complete with tubing and hardware. Installation time is less than an hour, says the manufacturer.



Adjustable Fifth Wheel

*from Fontaine Truck Equipment Co.
1232 N. 37th Place, Birmingham 1, Ala.*

is available with manual or cab locking control. Named the Lo-Slide Fifth Wheel, it fits any truck frame, weighs 590 lb. It's offered in three heights: 8½, 9½ and 10½ in., and has a standard adjustment of 21 in. in 3 in. increments. An oblong locking pin gives positive positioning. The Lo-Slide also has Fontaine's No-Slack kingpin lock. The fifth wheel is fastened to the tractor frame by U-bolts at each end and three bolts on each side.

Bulk Haul Tank Trailer

from Fruehauf Trailer Co.
Detroit 32, Mich.

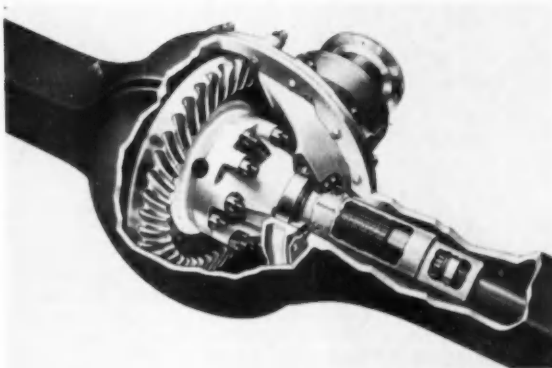
has 105 to 120 barrel capacity and handles almost all types of bulk powered commodities. Named the Fruehauf Pressure Tank, it features a pneumatic unloading system capable of pumping the trailer's contents up to 105 ft. Blower can be tractor-mounted and operated through a PTO. An optional discharge method, illustrated here, has the blower and separate engine mounted at the rear. The "Airlslide" discharge system is made by the Fuller Co., Catasauqua, Pa. Discharge rate is 3.33 barrels per minute through a 4 in. hose at 11 lb. pressure.



Traction Equalizer

from Transmission and Axle Div.
Rockwell-Standard Corporation
Detroit 32, Mich.

is a traction-improving device for both highway and off-highway vehicles. Named the Rockwell Traction Equalizer, it increases tractive effort to the wheel with the best traction. The new device is so effective it will move a vehicle even if one of the driving wheels is completely off the ground, says Rockwell. It is fully automatic, is effective whenever one wheel tends to turn faster than the other. With multi-drive axle trucks, each axle can be equipped with a Traction Equalizer. Unit is easily installed since the differential nest remains standard. Only new parts required are axle shafts and differential cases.



Combination Spring and Air Suspension

from Western Unit Corp.
17747 E. Railroad St.
City of Industry, Cal.

combines the advantages of both leaf springs and air cushions. Called the Equal Ride Suspension, it gives an equal ride for both loaded and empty trailers. It is said to cushion the load, absorb brake reaction, and align the axle whether the trailer is fully loaded or empty. Leaf springs carry the trailer weight and give a smooth ride when running empty. Air cushions team up with the springs to carry the payload and absorb road shock when the trailer is loaded. The new suspension comes in a complete package including sub-frame and all piping.



Axle Weight Indicator

from Toledo Scale Corp.
Toledo 12, Ohio

is a weatherproof scoreboard which shows the weight of each axle. Weighing is completely automatic. The driver can see each axle weight without leaving the cab. There is no need for a scale operator. A red and green light tells the driver when to move each axle on to the scale, when to stop. Optional features include printed weight receipts and an alarm system to indicate when an axle load is over any state load limit.

(TURN TO NEXT PAGE, PLEASE)





**"LESS DOWN-TIME
SINCE USING
LUBRIPLATE
LUBRICANTS"**

says: TREU HOUSE OF MUNCH INC.
of Toledo, Ohio.

"The use of LUBRIPLATE Lubricants has enabled us to operate our trucks with minimum down-time for repairs and parts replacement. Furthermore, we use but *one* Motor Oil, *one* grease and *one* gear lubricant, year round, which greatly simplifies our service program."

Richard A. Esser, Vice-President

**REGARDLESS OF THE SIZE AND
TYPE OF YOUR MACHINERY,
LUBRIPLATE GREASE AND
FLUID TYPE LUBRICANTS WILL
IMPROVE ITS OPERATION AND
REDUCE MAINTENANCE COSTS.**

LUBRIPLATE is available in grease and fluid densities for every purpose... LUBRIPLATE H. D. S. MOTOR OIL meets today's exacting requirements for gasoline and diesel engines.



For nearest LUBRIPLATE distributor see Classified Telephone Directory. Send for free "LUBRIPLATE DATA BOOK"... a valuable treatise on lubrication. Write LUBRIPLATE DIVISION, Fiske Brothers Refining Co., Newark 5, N. J. or Toledo 5, Ohio.



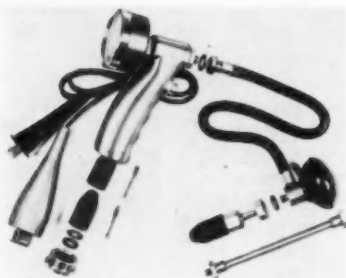
New Product Descriptions

Continued from Page 349

Compression Tester

from Harvey E. Hanson Co.
Lake Blvd. & Commercial St.
Paw Paw, Mich.

has a remote starter switch built into the handle of the tester. Called



the Model No. 33 Universal Compression Tester, it comes with adaptors and extensions, fits all cars. Dial is calibrated up to 250 lb.

Universal Hose Clamp

from Perm-A Mfg. Co.
296 N. Spring Garden St.
Ambler, Pa.

is made in one size, fits all diameters from 1/2 to 2 1/2 in. The Perm-A Grip clamp reels in the unused portion of the band. It can be used over and over.

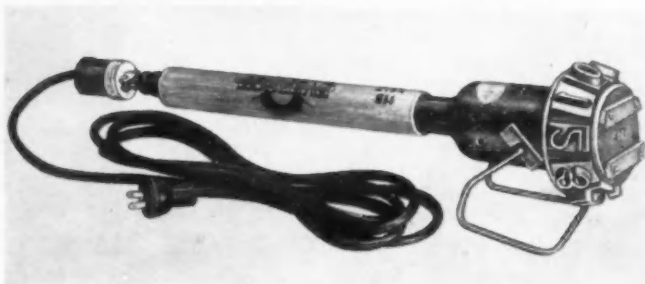


A pawl and ratchet locking mechanism gives positive holding action once the clamp is tightened. Band is made of stainless steel. Buckle is heat-treated and cadmium plated. No special tools are required when installing.

Protect Your Tire Dollars

By

BURN BRANDING NAME AND NUMERAL
IDENTIFICATION ON YOUR TIRES



NO. 59 TIRE BRANDER

A BURN BRAND WILL . . .

- LAST THE LIFE OF THE TIRE.
 - PROVIDE ABSOLUTE IDENTIFICATION.
 - NOT PEEL OR SCUFF OFF.
- A BURN BRAND COSTS LITTLE —

BRAND YOUR TIRES AND ROLL IMMEDIATELY

FREE! Tire Mileage Forms on Request
SEND FOR DETAILS AND PRICES

EVERHOT MANUFACTURING COMPANY

59 So. 19th Avenue

Maywood, Illinois

Arc Gages

from Barrett Equipment Co.
2101 Cass Ave., St. Louis 6, Mo.
are for checking brake lining and drums. Inner surface checks are ground on new lining, may also be used for checking worn shoes to determine if oversize replacement lin-



ings are needed. Outer surface checks brake drum to see if oversize or standard shoes should be used. The arc gages come in three sizes: 10, 11, and 12 in.

Frame Straighteners

from John Bean Div.
Food Machinery & Chemical Corp.
Lansing 4, Mich.

are available in stationary and portable models. A double bar roller-mounted carriage operating in dual tubular beams provides friction free pressure at any angle. It permits any combination of pulling, lifting, squeezing or spreading. The straightener is designed to fit on a floor or pit model of the John Bean Visualiner wheel aligner. It can be used on any body or frame design.

Swing-Away Mirror

from Arrow Safety Device Co.
Georgetown 12, Del.

has both horizontal and vertical adjustments, even when the arm is in the "swing-in" position. Featuring the "Customizer" mirror head with a deep-drawn steel back, the new design is said to reduce mirror vibration and shock and prevent condensation on the mirror face. Mirror itself mea-



sures 6½ x 16 in. Besides its swing-away feature for operation in close quarters, the mirror arms can also be extended up to 10 in.

Fiber Glass Tanks

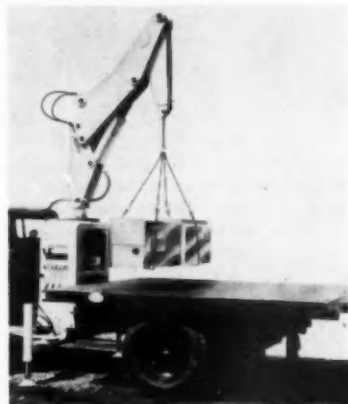
from Apex Reinforced Plastics
Washington & Elm Sts.,
Cleveland 13, Ohio

are for use as fuel tanks, air brake and diesel air starter reservoirs. Tanks are lightweight, require no painting; 60 gal fuel tank weighs 60 lb compared to 131 lb in steel models. Air brake tank weighs 15 lb in fiber glass compared to 44 lb in steel.

Jib Boom

from Daybrook Hydraulic Div.
Young Spring & Wire Corp.
Bowling Green, Ohio

is for use with the Daybrook Power Loader and uses the same hydraulic system. Load capacities are available



up to 7000 lb. Boom has a full 360 deg rotation. It's known as the Series PL6J, is offered in several models with remote or manual control. Special boom attachments are available to handle specific materials or do special jobs.

Molding Clip Tool

from K-D Mfg. Co.
Lancaster, Pa.

is for installing molding clips in late Chevrolets and Pontiacs. Jaws fit inside clip. Squeezing handles expands clip, holding it in place. Tool is the Model No. 440.

Engine Compartment Wire

from Belden Mfg. Co.
Chicago 80, Ill.

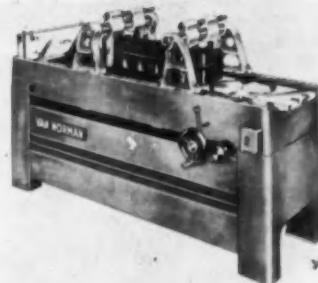
is designed to resist engine heat, moisture, oil, grease and solvents. Recent tests, says Belden, show that the wire can be operated continuously at temperatures as high as 300 deg F and as low as -67 deg F without affecting its electrical and mechanical characteristics. The engine compartment wires are available in sizes eight

through 16 with silicone rubber insulation, glass yarn braid and nylon outer jacket.

Rotary Broach

from Van Norman Automotive
Equipment Co.
Div. of Van Norman Industries
Springfield 7, Mass.

is for resurfacing cylinder heads and engine blocks to precision tolerances.



A built-in loading table gives fast top-side set-ups directly from the machined surface of the work. It also keeps chips out. Leveling devices are not needed, says the maker. Two sets of holding fixtures handle car and truck heads and blocks without complete disassembly. Other features include easily replaceable carbide-tipped cutters and automatic straight line traverse and micrometer up-feed control. New unit is known as the Model No. 570 Rotary Broach.

Brake Safety Valve

from Saf-T-Brake Valve Co.
484 N. Main St., Akron 10, Ohio
is installed in the hydraulic brake system to prevent loss of all brakes should a sudden rupture occur in the hydraulic system. The safety valve divides the brake system into two parts. If a rupture should occur in the front part of the system, the valve automatically blocks off that section, assuring brakes on the rear wheels. The same principle holds true if the break develops in the rear section.

Steam Cleaner

from Vapor Heating Corp.
80 E. Jackson Blvd., Chicago 4, Ill.
has 500 gal per hour capacity, is called the Upgrader Intermediate. It's designed for jobs such as cleaning ice, mud and snow off trucks and construction equipment, and degreasing. A detergent solution added through the injector is optional. Portable model is oil-fired. Stationary models can be oil or gas-fired.

(TURN TO NEXT PAGE, PLEASE)

Classified Advertisement

Agents Wanted: Leading manufacturer of wet and dry type storage batteries now setting up to sell through manufacturer's agents. Many territories available. Give complete resume first letter. Box 15, Commercial Car Journal, 5601 Chestnut St., Philadelphia 39, Pa.

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FLANGE TYPE REAR AXLE PULLER

P-60

Attaches to any standard wheel-puller. Pulls any flange-type rear axle on late model cars and trucks. Delivers a powerful blow to jar loose the tightest axle shaft. A must for every GARAGE!

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G-13

NEW 7-way wrench, for all late model cars. Includes two 5/16" hex for newest Chrysler cars.

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with replaceable wire buff

T-9

NEW BATTERY TOOLS

B-26 2-in-1 post cleaner and cable spreader and cleaner. B-207 Chrome nickel Plier. B-24 New super-Grip Terminal Puller. B-25 Complete set 3 tools in B-26 carrying case. Sold as kit or separately. See your jobber.



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ALL PURPOSE
SYSTEM
REVOLUTIONIZES
VEHICLE WASHING**

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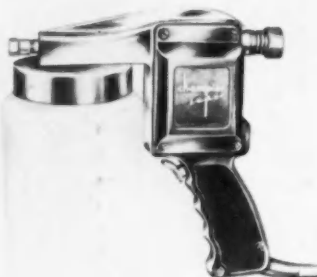
Wohlert
CORPORATION
LANSING 3 MICHIGAN

New Products

Continued from Page 351

Electric Spray Gun

from Klepp Bros. Inc.
P. O. Box 951, White Plains, N. Y.
is a self-contained, electrically driven, compressor-less unit for paint spraying. Named the Champion Super, it



can also be used to spray solvents, metal primers and other liquids. Body is made of cast aluminum, comes with acid resistant plastic reservoir. Gun operates on 110 volts, AC with power rating of 80 watts.

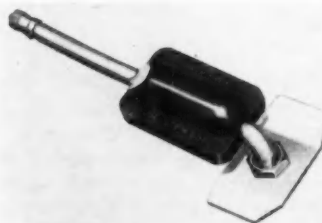
Splash Guards

from the Gates Rubber Co.
Denver 17, Colo.

feature a new design said to eliminate cracking and splitting on the outer edge and spreading to the center. The new guard has a reinforcing ridge along the outer edge to increase tear resistance and prolong service life. They are available in four models to fit all dual wheel trucks and trailers.

Valve Stem Lock

from Mechanex Corp.
1144 Broadway, Denver 3, Colo.
prevents truck tire fires and other "run-flat" tire damage caused by pulled-in valve stems. It fits all valve



stems, is said to be quickly and easily installed without tools. It can be put on most inside dual tires without removing the outside wheel, and it will not unbalance tires.

Brake Spring Tools

from K-D Mfg. Co.
Lancaster, Pa.

are for Bendix and Lockheed brakes. Two models are for removing and installing brake return springs. The third model (Model No. 285) is for retaining springs on Bendix brakes.

Plastic Repair Material

from Williamson Adhesives, Inc.
8220 Kimball Ave., Skokie, Ill.

is an all-purpose repair material which the maker says can be used to repair almost anything. It can stick anything to anything and make it hold. Called Plastic Mastic, it comes in two cans. One can is an epoxy resin, the other the hardener. It is used to fill in cracked shop floors, driveways, curbs, bricks—and even plumbing. It can also be used for installing windows, floors, hardware and concrete blocks!

Leak Detector

from Sprague Devices, Inc.
Michigan City, Ind.

locates leaks in compressed air lines. Called Air-Push Leak Detector, it's applied as a clear liquid, has no suds. Just daub it on joints and watch for bubbles.

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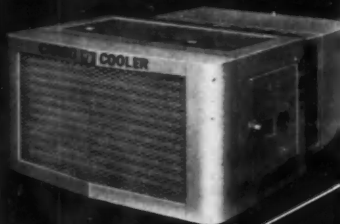
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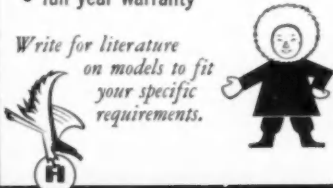
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in the
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down-to-zero
temperature ranges

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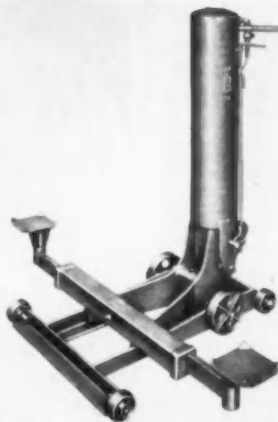
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on models to fit
your specific
requirements.



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TRANSPORT HEATING AND REFRIGERATION

Bumper Lift Jack

from Weaver Mfg. Co.
2166 S. Ninth St., Springfield, Ill.
is air operated, has a 3000 lb ca-
pacity. Features of the Model No.
WA-56 include one hand operation of
air control valve and safety release,



and a safety lock which operates in
six height positions. Saddle adjust-
ment is from 19 in. inside to 56 1/4 in.
outside. High lifting point of the
saddle is 32 1/4 in.

Hose and Cable Supports

from Berg Mfg. & Sales Co.
1712 S. Michigan Ave.
Chicago 16, Ill.

keep brake hoses and light cable be-
tween tractor and trailer from
chafing, whipping or fraying by hold-
ing each line separately. One model
is called the Berg FlexaStik. It
pivots at the bottom to give maximum
brake hose reach with minimum bend.
Heavy compression spring eliminates
whipping. Other model is the Berg
Swiv-A-Bracket which mounts on the
rear of the cab. It holds hoses and
light cable, and swivels on corners
to keep hoses in line with trailer nose.

Tire Changer

from the Salsbury Corp.
1161 E. Florence Ave.
Los Angeles 1, Cal.

is named the heavy duty Model D
Salsbury Tiremaster. It's for mount-
ing and dismounting all size tube and
tubeless automobile tires, including
special tires 12 ply and over. A
double-action hold-down cone locks the
wheel on the pedestal. The combina-
tion mount and dismount tool gives
proper leverage for bead looseners.
Five rollers roll beads over the rim
flange. Open three-arm wheel support
construction gives access to valve
stem on wheels which must be han-
dled valve side down.

(TURN TO PAGE 355, PLEASE)



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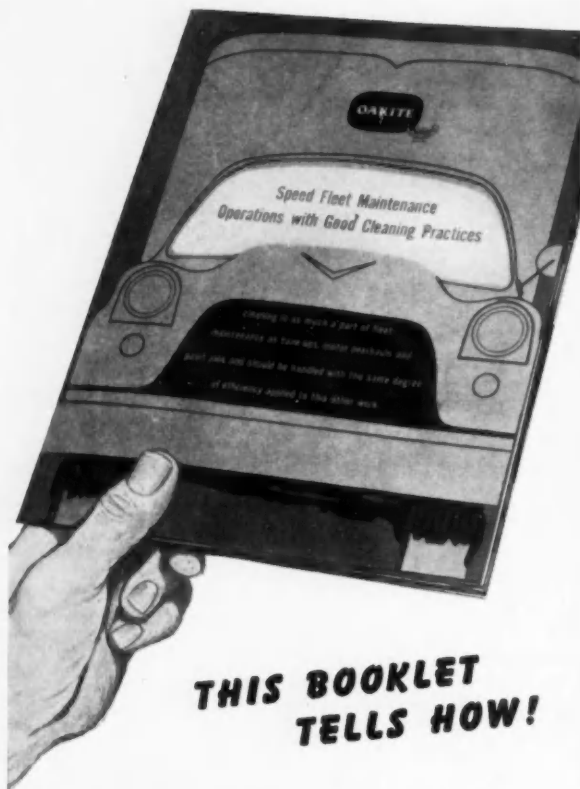
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New Products

Continued from Page 353

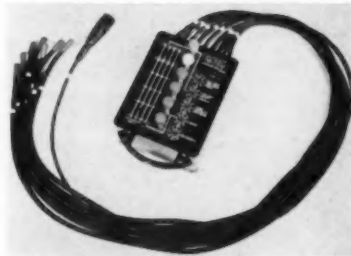
Wheel Aligner

from John Bean Div.
Food Machinery & Chemical Corp.
Lansing 4, Mich.

is now available to small fleet operators who normally have front end alignment work done by an outside concern. The aligning equipment is designed to convert any drive-on type grease rack into a wheel aligner. Support stands and wheel stands to level the vehicle are included. The alignment equipment is for use with the John Bean Visualette or other portable alignment sets.

Cylinder Balance Tester

from Kent-Moore Organization, Inc.
28635 Mound Rd., Warren, Mich.
is for trouble-shooting hard-to-find engine problems. Called the Model No. J7412 Cylinder Balance Tester,



it is operated by connecting test leads to the distributor and spark plugs. Using a vacuum gage and tachometer as an aid, various tests are made by pushing the buttons on the test unit.

Aluminum Strainers

from OPW Corporation
2735 Colerain Ave.
Cincinnati 25, Ohio

are for tank truck fleets. The line strainers have lightweight aluminum bodies, are made in two styles—one with female threaded ends, the other with flanged ends. Both styles are bottom opening types. All have woven mesh screen.

Tube and Tire Patches

from Ace Rubber Co.
Dallas 22, Tex.

are made in four sizes and in round and oblong shapes. They're for tubeless tire and tube repair, are called Ace Chembond Patches. Chembond cement is made for use with the patches.

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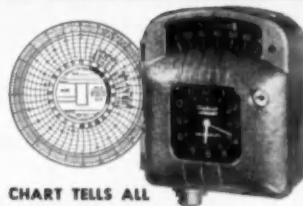
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HOW ARE YOUR TRUCKS DOING?

..get facts at cost of
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per day per truck



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records starts, length of stops, speed traveled

A Tachograph on a truck not only "supervises", but encourages, safer more economical operation of a vehicle. A chart is placed inside the Tachograph before truck starts on run. All truck movements are graphically recorded on the chart (which costs a little more than 2¢ each). At end of day the chart is removed from Tachograph and you have a permanent record of trip log.

For details, use coupon for free copy of Bulletin SU-3.



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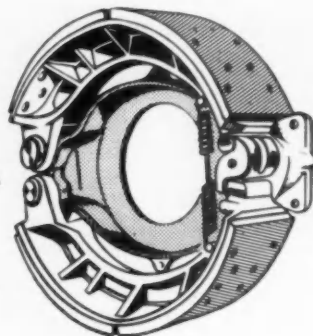
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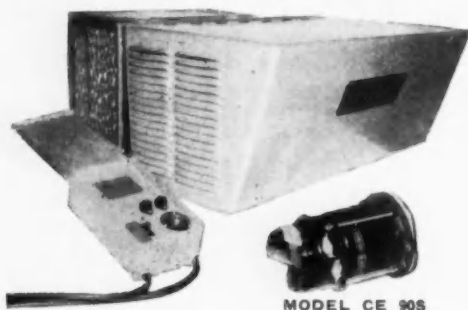
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Reo Tune-Up Specs

Continued from Page 135

LUBRICATION

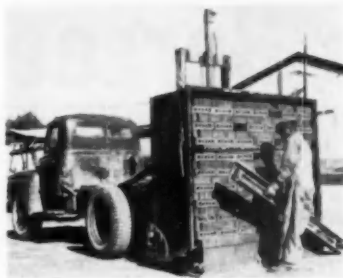
Crankcase

All engines...Use Type C Heavy Duty engine oil. Above 32 deg. use SAE 30, between 20 and 32 deg use SAE 20W, between -10 and 20 deg use SAE 10W, below -10 deg use SAE 5W.

Rear Axle

Timken axles...All models: Above 0 deg use SAE 140 gear lubricant. Below 0 deg use SAE 90 if lower viscosity is needed.

Eaton axles...All models: Below -10 deg use SAE 80 gear lubricant. Above -10 deg up to 100 deg use SAE 90. Above



Brick Hauler

A single man can handle some 125,000 bricks per day... that's the record set by an operator using the new Stock-Hauler made by American Truck Body Co., Martinsville, Va. One operator required only 3 1/4 minutes to load 3000 bricks with the Stock-Hauler, drive two-tenths miles to the storage yard, unload and return. During an eight hour day, he averaged better than 15,000 bricks per hour.

100 deg consistently, use SAE 140.

Electric shift units...Use SAE 10 engine oil Summer and Winter. Below 0 deg add 1 part Kerosene to 3 parts SAE 10.

Transmission

Warner...Below 32 deg, use SAE 50 heavy duty engine oil. Above 32 deg, use SAE 90 gear lubricant.

Clark...All models: Use SAE 50 straight mineral oil for both Summer and Winter.

Spicer...Use only SAE 50 straight mineral engine oil Summer and Winter. Do not use HD engine oil, E.P. gear oils or all-purpose lubricants.

Spicer Auxiliary...Use SAE 50 heavy duty engine oil for Summer and Winter.

Fuller...Above 32 deg, use SAE 140 straight mineral oil. From 0 to 32 deg, use SAE 90. Below 0 deg use SAE 80. Do not use engine oils, E. P. gear oils or all purpose lubricants.

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ALL SIZES

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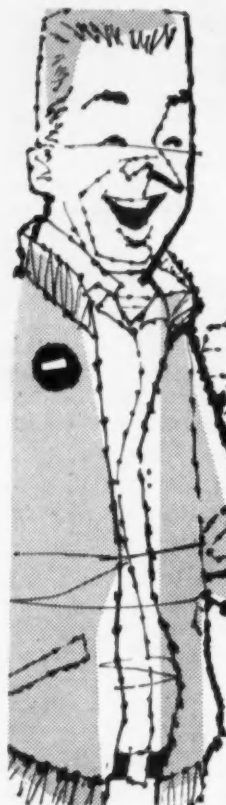
A Scrap tube must accompany each tire.

If not we will purchase tires without tubes at a lower price.

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3141 Washington Boulevard Baltimore 30, Md.

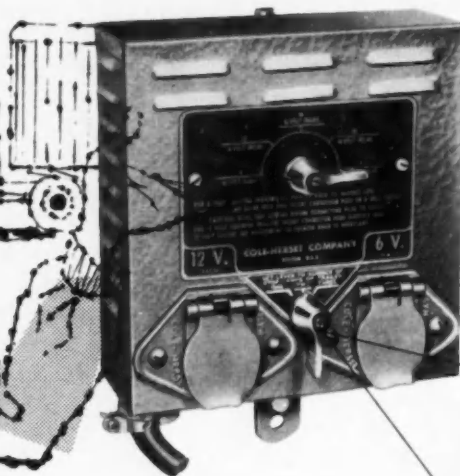
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76 Pages—275 Illustrations
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jack-pack

Write today for new illustrated JACK-PACK folder:

JACK-PACK MFG. CO.



2115 NO. MARIANNA AVE.
LOS ANGELES 32, CALIF.

White Tune-Up Specs

Continued from Page 155

Auxiliary Transmissions

6231, 7231, 8031... Use SAE 50 engine oil Summer and Winter.

Rear Axle

Rear Axle Model

124C, 133C, 134C, 189C, 233C, 292C, 293C, 317C, 318C, 328C, 329C, 400C, 407C... Use SAE 90 EP Summer and Winter.
116C, 135C, 136C, 138C, 208C, 232C, 235C, 333C, 333TC, 335C, 336C, 338C, 389C, 389TC, 401C, 411C, 412C, 413C, 415C, 416C, 417C, 418C, 420C, 422C, 424C, 425C, 426C... Use SAE 140 EP Summer and Winter.
414C... Use SAE 140 straight mineral oil Summer and Winter.

MODEL NUMBERS

Truck model... See identification plate inside cab.

Engine model... See left side of engine either on block over generator or under oil filter.

Transmission model... See plate on right hand side of housing.

Front axle model... Stamped on left hand side of front of axle beam.

Rear axle model... Stamped on top of differential housing.

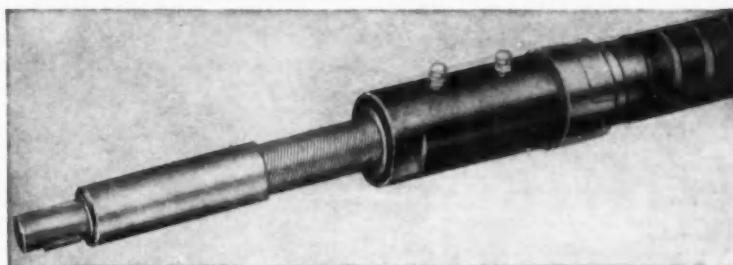


-ALT-

"Oil it when she isn't looking!"

COMMERCIAL CAR JOURNAL, April, 1959

HOW TO SELECT FLEXIBLE SHAFTING FOR POWER DRIVE APPLICATIONS



1 1/4-inch STOW Power Drive flexible shaft with core assembly pulled out of casing.

For Power Drive applications, the following factors must be considered:

1. **Torque (Lb. in.)** to be transmitted. (The starting torque should be used in making selections.)

2. **Operating Speeds (RPM)**—If the maximum speed is higher than the rated speed, torque ratings in the table below do not apply. To find the torque capacity for flexible shafts operating at speeds higher than the rated speeds, multiply the maximum dynamic torque capacity by the rated speed, and then divide by the operating speed. (See example.)

3. **Operating Radius**—In making the selection from the table below, the radius of the smallest bend in the flexible shaft should be used.

Ratings—The ratings for flexible shafts shown in the table below apply under the following conditions:

1. when the flexible shaft is adequately supported by clamps along its length. (For unsupported shafts, multiply the calculated torque by a safety factor of 1.6—see example below.)

2. when the flexible shaft is operated in the wind-up direction, which tends to tighten the outer layer of wires. (Flexible shafts operated in the unwind direction will transmit only about 60% of the rated torque.)

3. when the flexible shaft is in continuous operation. Note: the ratings are based on temperature rise. When the operation is intermittent, the ratings in the table may be exceeded. Consult Stow engineers for specific recommendations.

RATED SPEED R.P.M.	MAXIMUM DYNAMIC TORQUE CAPACITY (LB. IN.)									Wgt./ C. Ft.	Core Dia.	Core No. and Type	Shaft Size
	STRAIGHT AND CURVED SHAFTS												
	RADIUS OF CURVATURE IN INCHES												
	50 to Strgt.	25	20	15	12	10	8	6	5				
4,500	2.4	2.2	2.0	2.0	1.92	1.9	1.7	1.5	1.25	3.0	.124/ .128	2049 MH	13
3,800	7.0	6.4	6.0	5.8	5.4	5.0	4.6	3.6	2.0	4.5	.148/ .152	2081 MH	15
2,900	9.4	8.6	8.0	7.6	7.0	6.6	6.0	4.8	3.4	7.0	.185/ .189	5108 MH	19
2,500	22.0	20.0	18.8	17.6	16.0	15.0	12.6	10.8	9.0	12.5	.247/ .252	8924 MH	25
1,800	30.0	28.0	26.4	25.0	23.0	21.0	18.0	14.0		20.0	.308/ .313	8925 MH	31
1,800	33.8	31.5	29.7	28.1	25.9	23.6	20.2	15.8		20.0	.308/ .313	8969 T	31
1,800	36.0	33.0	31.6	30.0	28.0	26.0	22.0	18.0	11.0	21.0	.324/ .329	2034 A	31
1,500	80.0	66.0	63.0	58.0	51.0	46.0	37.0	22.0		28.5	.368/ .374	2035 A	38
1,500	60.0	54.0	50.0	46.0	42.0	38.0	30.0	24.0		29.0	.387/ .393	8970 MH	40
1,500	90.0	81.0	75.0	69.0	63.0	57.0	45.0	36.0		29.0	.387/ .393	8971 T	40
1,150	136.0	110.0	104.0	94.0	80.0	72.0	56.0			50.5	.497/ .503	8999 A	50
1,150	148	124	110	92	72	56				53.5	.505/ .511	6940 T	50
900	248	200	176	124	84					78.5	.610/ .618	6997 T	63
900	220	204	192	180	152	130				80.5	.630/ .638	7731 A	63
750	340	224	156	76						117	.747/ .753	2056 T	75
600	760	520	420							205	.998/ 1.004	2057 T	100
440	1,500	720								343	1.298/ 1.304	2058 T	125

EXAMPLE—Now to use the table:
The problem is to transmit 1/2 HP at 1700 RPM through an unsupported flexible shaft in a 25" radius, estimated starting torque 150% of normal operating torque.

1. Calc. Torque (Lb. in.) —

$$\frac{HP \times 63000}{RPM} = 18.5$$

2. Correction factor for starting torque
 $1.5 \times 18.5 = 27.75$

3. Correction factor for unsupported shaft
 $27.75 \times 1.6 = 44.4$ lb. in.

4. Refer to Table above. Read downward in column under 25" radius until you find a core having a rating at or above 44.4 lb. in. In this case we find that core No. 8970 is rated 54 lb. in. at 1500 RPM. Since the given speed is 1700 RPM, multiply 54 by 1500 and divide by 1700. $54 \times 1500 \div 1700 = 47.6$ lb. in. (rated torque at 1700 RPM). Therefore, Core No. 8970 is correct.

For Engineering Bulletin No. 570 and a free torque calculator, write



STOW MANUFACTURING COMPANY

38 Shear Street

Binghamton, New York

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why nylon cord truck tires?

Tire performance data:

Nylon Cord		Ordinary Cord
10:00 X 22	size of tire	10:00 X 22
\$130	cost of new tire	\$115
3	number of retreads obtainable	1.5
\$30	cost of each retread	\$30
\$90	total retread cost	\$45
\$220	total tire cost (with retread)	\$160
301,000	total mileage obtained	132,000
7.3¢	cost per 100 miles	12.1¢

**40% less cost every mile—
that's why!**

These are actual figures taken from the records of a major fleet operator. A little simple arithmetic reveals this startling fact: an investment of \$60 more in a nylon cord tire rolled up 301,000 miles and savings of \$204.49. You figure the possible savings on a set of six.

Nylon cuts mileage costs because it makes the strongest, most durable cord fiber ever built into a tire. Long after ordinary cords have been knocked out by heat rupture, flex

breaks, impact damage or moisture rot, tough nylon cords roll on. Nylon's stronger casing clocks more original mileage, takes more retreads for thousands of extra miles.

And today's nylon is stronger than ever. One reason: a growing share is produced by The Chemstrand Corporation, a top nylon supplier. Run a comparison test of your own. Discover this fact: for a mileage bargain, nothing touches nylon cords.

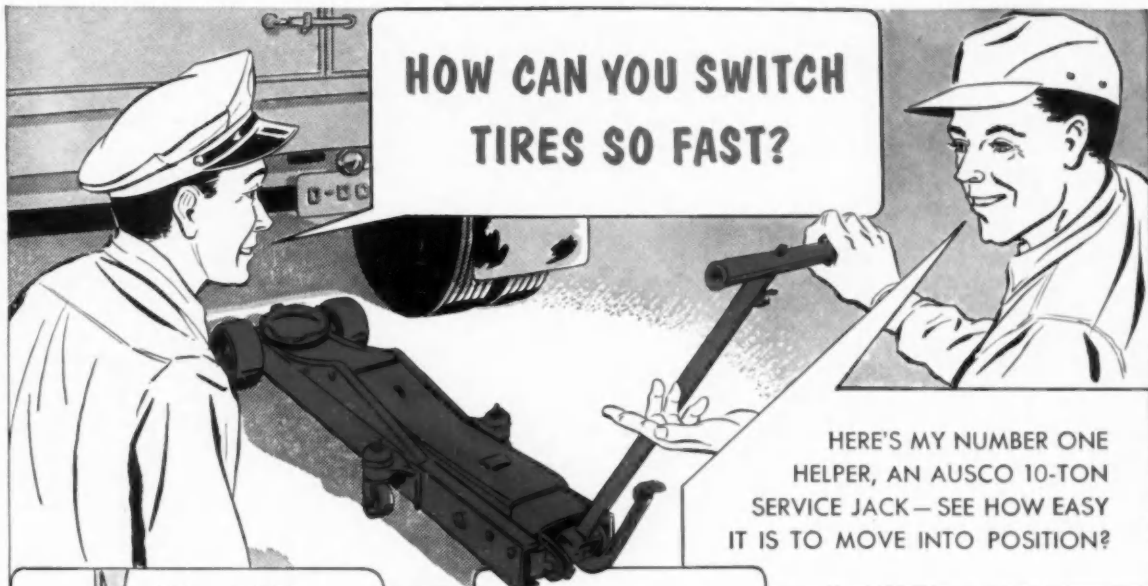
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Chemstrand makes only the yarn; America's finest mills and manufacturers do the rest.

THE CHEMSTRAND CORPORATION, 550 Fifth Ave., N. Y. 1 • Plants: CHEMSTRAND•NYLON—Pensacola, Fla. • ACRYLAN•ACRYLIC FIBER—Decatur, Ala.

HOW CAN YOU SWITCH TIRES SO FAST?



HERE'S MY NUMBER ONE HELPER, AN AUSCO 10-TON SERVICE JACK — SEE HOW EASY IT IS TO MOVE INTO POSITION?

This quick lift lever brings the saddle up to the load 3 times faster; easier, too!

Now Ausco's spring-balanced handle takes over for a fast, easy, high lift, even on this big truck.

- Roller-bearing front wheels, ball-bearing caster rear wheels
- Large malleable iron lifting saddle
- Quick-lift foot lever
- Spring-balanced detachable handle
- Safety overload valve
- Extra-low shoulder
- Oilite bearings on pivot pins
- Sturdy channel frame

Here's my other helper... Ausco's Dual Wheel Lift Dolly really speeds up the job and eliminates backache.

LOOK AT THESE SUPERIOR AUSCO FEATURES!

Ausco offers a complete line of rugged, safe, easy-to-use service jacks, 1¼, 1½, 2, 4 and 10 tons capacity.

See your Ausco jobber now!

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Other plants in Benton Harbor and Hartford, Mich. and Windsor, Ont., Can.

Ausco...
Quality Jacks
for every
service need!



Bipod
Bumper
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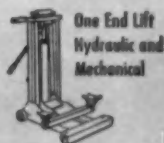
Hydraulic Hand Jacks



Garage
Horses



Truck
Transmission
Handlers



One End Lift
Hydraulic and
Mechanical



New 50-inch Tilt-cab in Diamond T Model 931C

Tilts by hand . . . open in seconds

THIS new Tilt-cab series means bigger payloads—both in weight and “cube.” The compact 931C was designed for reduced chassis weight, and the short 50-inch BBC dimension permits maximum length trailers . . . also 25-foot doubles in Western states. 28-inch bumper to front axle dimension is favorable for peak payloads where the “bridge formula” applies.

Three versions of new cab

A choice of three cabs in the 931C means the *right* cab for any operation. The basic 931C has a 50-inch two man cab. Sleeper cabs include a 25-inch “bustle-back” version . . . and a full-skirted sleeper cab with a 30-inch berth. BBC on the full-skirted cab is 80 inches.

Five Cummins diesel engines power this new Tilt-cab series, ranging from 180 to 262 h.p. Engine

installation is conventional; no tilting or canting to create service problems.

The entire unit is ruggedly built with road-proven components, giving assurance of hundreds of thousands of miles with minimum maintenance.

All Diamond T's are custom-built

Like all Diamond T trucks, the 931C is custom-built to match *your* service. Custom-built options include: 12 single rear axles, both single and two-speed; 8 tandem rear axles, with two-speed tandems available; 9 main transmissions from four-speed to twelve-speed; 4 auxiliary transmissions.

There are custom-built Diamond T's for every heavy-duty service: on highway or off; gas, diesel or LPG power; six or V-8; conventional or Diamond T Tilt-cabs. See your Diamond T dealer for custom-built quality.

DIAMOND T TRUCKS

Established 1905



**The Diamond
is for Quality**

